

KENT COUNTY COUNCIL.



Annual Report

OF THE

MEDICAL OFFICER OF HEALTH

For the Year 1920,

BY

ALFRED GREENWOOD, M.D., B.Sc., D.P.H.,

BARRISTER-AT-LAW,

County Medical Officer of Health.



Maidstone :

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1921,

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DEPARTMENT OF THE COUNTY MEDICAL OFFICER,
SESSIONS HOUSE,
MAIDSTONE,
September 1st, 1921.

To the Chairman and Members of the Kent County Council.

MY LORDS AND GENTLEMEN,

In accordance with General Order No. 55,475 of the Local Government Board, I beg to submit herewith my ninth Annual Report on the Public Health and Sanitary Condition of the County of Kent for the year ended December 31st, 1920.

An account has been given in this Report of the work carried out in connection with the Tuberculosis Organisation of the County, instead of issuing a separate volume.

I wish to express my appreciation and thanks to the district medical officers of health who have invariably given me every possible assistance in the execution of my duties.

Also I should like to state that all the members of my staff have again worked unstintingly during the year, and have carried out their duties in a highly creditable manner.

I am, my Lords and Gentlemen,

Yours obediently,

ALFRED GREENWOOD,

KENT COUNTY COUNCIL.

PUBLIC HEALTH COMMITTEE.

This Committee reports to the County Council on all matters concerning the Public Health. Its constitution for 1921 is as follows:—

ALEXANDER, SIR S. R., M.D.	HARRISON, W. J.
AMES, W.	HILLS, S.
ARNOLD, G.	HOWDEN, I. D. C., M.D.
BARKER, W. COBBETT	HUGGINS, H.
BILLINGHURST, E. A.	HUSSEY, E. W. (Chairman of the Finance Committee)
CHALMERS, KENNETH E.	IGGLESDEN, C.
CHILD, SIR COLES, BART.	LINDLEY-JONES, W.
COLLET, SIR MARK E., BART. (Vice- Chairman of the County Council)	MARSHAM, GEORGE
CORNWALLIS, COL. F. S. W., C.B.E. (Chairman of the County Council)	MUMFORD, C. E.
DARNLEY, THE RIGHT HON. THE EARL OF	PAYNE, F. WALTER (Chairman of Committee)
GOLDIE, L. A.	REID, E. J.
GOWER, SIR R. VAUGHAN	RULE, W. N.
GUILFORD, THE RIGHT HON. THE EARL OF	SACKVILLE, THE RIGHT HON. LORD
GULLICK, MAJOR H. T.	SHEA, S.
HARDY, THE RIGHT HON. LAURENCE	SMITH, S. LEE
HARRIS, THE RIGHT HON. LORD, G.C.S.I., G.C.I.E., C.B.	SMITH-MASTERS, W. A.
	VINSON, A.
	WILFORD, JOSHUA

The Public Health Committee, as above, with the following additional members, constitutes the Maternity and Child Welfare Committee:—

THE HON. MRS. HARDCASTLE, of All Saints' Vicarage, Maidstone

MRS. HATFEILD, of Hartsdown, Margate

MISS PICKERSGILL-CUNLIFFE, of Vicarage Lodge, East Malling.

LOCAL AUTHORITIES.

BOROUGH AND URBAN.

5

Urban and Borough Councils.	Clerks. (1921.)	Medical Officers of Health. (1921.)	Public Health Staff.		†Date of Receipt of Annual Summary or Report.	
			Inspec- tors of Nui- sances.	Clerical		
Ashford U..	J. Creery ..	*D. MacDougall ..	1	—	May	12th
Beckenham U	F. W. Gedney ..	*J. M. Clements ..	1	3	July	22nd
Bexley U ..	T. G. Baynes ..	T. W. Hind ..	2	1	June	29th
Broadstairs U	L. A. Skinner ..	*A. M. Watts ..	1‡	—	April	23rd
Bromley B	F. H. Norman ..	J. Mathewson (Acting) ..	2	1	June	20th
Chatham B	E. B. Lee ..	*J. Holroyde ..	3 (1‡)	2	May	2nd
Cheriton U	A. Atkinson ..	*D. MacDougall ..	1	1	May	12th
Chislehurst U	J. J. Brown ..	*J. S. Tew ..	2	—	June	6th
Crayford U	L. B. Burslem ..	C. M. Ockwell ..	—	—	—	—
Dartford U	J. J. Hurtley ..	T. Farthing (Acting) ..	1‡	1	June	9th
Deal B ..	D. A. Daniels ..	A. Mason ..	1‡	1	March	22nd
Dover B ..	R. E. Knocker ..	*A. B. McMaster ..	4	—	July	1st
Erith U ..	J. Atkinson ..	*A. E. Jerman ..	2‡	2	June	9th
Faversham B	Guy Tassell ..	C. J. Evers ..	1‡	—	April	5th
Folkestone B	A. F. Kidson ..	*M. G. Yunge Bateman ..	3‡	1	May	31st
Footscray U	F. Booth ..	*J. S. Tew ..	1	—	June	6th
Gillingham B	F. C. Boucher ..	*F. C. Warren ..	3‡	1	March	31st
Gravesend B	H. H. Brown ..	*C. D. Outred ..	3 (1‡)	1	April	3rd
Herne Bay U	G. H. Beetonson ..	*A. M. Watts ..	1	—	April	25th
Hythe B ..	B. C. Drake ..	*D. MacDougall ..	1	—	May	12th
Lydd B ..	G. G. H. Witchell ..	M. B. S. Button ..	1	—	April	5th
Maidstone B	S. Lance Monekton ..	C. Pye Oliver ..	2 (1‡)	1	May	22nd
Margate B	E. Brooke ..	*R. McCombe ..	3 (2‡)	1	May	24th
Milton Regis U	J. Dixon, jun. ..	*H. C. Mends Gibson (Acting) ..	1	1	March	22nd
New Romney B	W. Lamacraft ..	H. Hick ..	1	—	April	6th
Northfleet U	C. E. Hatten ..	H. T. Sells ..	1‡	—	March	10th
Penge U ..	A. E. Eves ..	R. Wilkinson ..	2 (1‡)	1	May	6th
Queenborough B	E. C. Harris ..	*H. C. Mends Gibson (Acting) ..	1	—	March	22nd
Ramsgate B	A. Blasdale Clarke ..	*W. J. Bannister ..	2 (1‡)	1	June	3rd
Rochester City	A. Kennette ..	*S. J. Pritchett ..	3 (1‡)	1	May	2nd
Sandgate U	H. Stainer ..	J. C. O. Bradbury ..	2	—	April	5th
Sandwich B	E. C. Byrne ..	J. W. Harrison ..	1	—	March	18th
Sevenoaks U	G. T. Bradbury ..	*J. S. Tew ..	1‡	—	June	6th
Sheerness U	V. H. Stallon ..	*H. C. Mends Gibson (Acting) ..	1‡	—	March	22nd
Sittingbourne U	G. H. Potter ..	*H. C. Mends Gibson (Acting) ..	1‡	1	March	22nd
Southborough U	P. Hammer ..	*J. S. Tew ..	2	—	June	6th
Tenterden B	H. B. Mace ..	*J. S. Tew ..	1	—	June	6th
Tonbridge U	H. W. Peach ..	*J. S. Tew ..	1	—	June	6th
Tunbridge Wells B	W. C. Cripps ..	*F. C. Linton ..	2	1	April	10th
Walmer U..	F. W. Hardman ..	F. M. Hughes ..	1‡	—	May	29th
Whitstable U	J. F. Whichcord ..	F. P. Piper ..	1‡	—	July	2nd
Wrotham U	H. E. Pyle..	E. H. Walker ..	1	1	March	22nd

RURAL.

Ashford, East	J. Kingsford ..	*D. MacDougall ..	1	—	May	12th
Ashford West	J. M. Poneia ..	*D. MacDougall ..	1	—	May	12th
Blean ..	W. T. Brooks ..	*A. M. Watts ..	1	—	April	25th
Bridge ..	T. L. Collard ..	*J. J. Day ..	1‡	—	July	30th
Bromley ..	E. Haslehurst ..	*J. S. Tew ..	2	—	June	6th
Cranbrook	Erie Clarke ..	*J. S. Tew ..	1	—	June	6th
Dartford ..	E. J. Hobbs ..	*S. Richmond ..	4	—	May	24th
Dover ..	C. Dacre Carder ..	*J. J. Day ..	1	—	July	30th
Eastry ..	F. S. Cloke ..	*J. J. Day ..	2	—	July	30th
Elham ..	B. C. Drake ..	*D. MacDougall ..	1	—	May	12th
Faversham	Guy Tassell ..	P. G. Selby ..	1‡	—	March	19th
Hollingbourn	F. Miskin ..	G. M. Tuke ..	1	—	February	23rd
Hoo ..	R. P. Smyth ..	C. Flood ..	1	—	May	19th
Maidstone..	F. Post ..	*J. S. Tew ..	1‡	—	June	6th
Malling ..	F. J. Allison ..	A. H. Roberts ..	1	—	April	22nd
Milton ..	E. C. Harris ..	*H. C. Mends Gibson (Acting) ..	1‡	1	March	22nd
Romney Marsh	W. Lamacraft ..	H. Hick ..	1	—	May	8th
Sevenoaks..	F. H. Vibert ..	*J. S. Tew ..	2 (1‡)	—	June	6th
Sheppey ..	H. T. Copland ..	T. R. Wigglesworth ..	1	—	February	27th
Strood	J. E. Povey ..	C. Flood..	1	—	April	17th
Tenterden ..	J. Munn Mace ..	*J. S. Tew ..	1	—	June	6th
Thanet ..	C. Taylor ..	*A. M. Watts ..	1‡	—	May	3rd
Tonbridge..	N. R. Stone ..	*J. S. Tew ..	1	1	June	6th

*These Medical Officers devote their whole time to Public Health work.

† Each medical officer of health has supplied information in reply to a summary of questions addressed from the County Health Department, on which this report is mainly based. The annual report has also been used where available.

‡ Inspector of Nuisances holds meat inspectors certificate.

ANNUAL REPORT.

ADMINISTRATION.

The following alterations in the local public health service took place in 1920, or early in 1921 :—

Resigning M.O.H.	Succeeded by	Date.
Dr. T. Farthing (Dartford).....	*Dr. G. H. Dart.....	April 1st, 1920.
„ T. B. Heggs (N.E. Kent United District)	„ H.C. MendsGibson (Acting)	Mar. 15th, „
„ C. D. Outred (Hoo Rural) ...	„ C. Flood.....	May 13th, „
„ J. Wood (Walmer)	„ G. T. Birdwood ...	June 14th, „
„ D. MacDougall { Broadstairs... Herne Bay ... Blean R. and Thanet R.	„ A. M. Watts	Oct. 1st, „
Ditto (Dover Borough)	„ A. B. McMaster... ..	July 1st, „
Ditto (Dover R, Bridge R, Eastry R)	„ J. J. Day	Feb. 1st, 1921.
„ G. T. Birdwood (Walmer) ...	„ F. M. Hughes ...	Feb. 3rd, „
„ O. Sunderland (Bexley)	„ T. W. Hind ...	Jan. 1st, „

Dr. McDougall took up his duties as whole-time medical officer of health for Ashford, Cheriton and Hythe and the Rural Districts of East Ashford, West Ashford and Elham on August 1st, 1920, having previously acted temporarily as M.O.H. of the East Kent Combined District.

Crayford U.D.—The parish of Crayford in the Dartford Rural District was constituted an Urban District on October 1st, 1920. The population of Crayford is estimated at 12,000 and the acreage is 2,455. The only statistics available for the district for the last three months of the year are those relating to births and deaths, the figures relating to infectious diseases, &c., having been included in the Dartford Rural District to the end of 1920. For the purpose of computing annual birth and mortality rates for 1920 the population figure of 3,025 has been taken (*i.e.* $\frac{92}{365}$ days \times 12,000). The Dartford Rural population for these rates has been adjusted similarly.

Dr. C. M. Ockwell has been appointed medical officer of health and he took up his duties on January 1st, 1921.

*Dr. Dart has since resigned and Dr. Farthing is again acting M.O.H.

MINISTRY OF HEALTH INQUIRIES.

The following inquiries were held by the Ministry of Health during the year 1920:—

Date.	District.	Amount of Loan	Purposes for which Loan required or reason of Inquiry.
March 31st . . .	Maidstone B ...	£3,950	For the purchase of land for the extension of sewage disposal works.
April 16th	Chatham B.....	—	Petition of Rochester and Chatham Joint Sewerage Board for power to acquire land, otherwise than by agreement, for purposes of sewerage and sewage disposal. This was an extension of a Provisional Order granted in 1914 which had expired during the war. The sewerage scheme had been approved, and the land was for the erection of pumping stations.
April 26th	Queenborough B, Sheerness U and Sheppey R	—	Enquiry into application for a Provisional Order forming this area into a united district for the provision, maintenance, &c., of a hospital, and providing for the constitution of a joint hospital board.
May 14th	Bexley U	£5,906 £810	Enquiry into application to borrow the larger sum for works of sewerage, and the smaller sum for works of surface water drainage.
July 6th	Margate B	—	Application for approval of a town planning scheme in an area extending into the rural district of Thanet.
August 24th.....	Tenterden B Tenterden R and Cranbrook R	—	Enquiry into application for the formation of these areas into a united district for the provision, maintenance, &c., of a hospital for cases of infectious disease.
December 2nd ...	—	£213,682	Enquiry into application of West Kent Main Sewerage Board for consent to borrow, for the purpose of extending sewage outfall works at Longreach, near Dartford.
December 3rd ...	Sheerness U ...	£26,500	Enquiry into application for loan to commence first stage of works of sewerage.

OFFICIAL CIRCULARS, &c., RESPECTING PUBLIC HEALTH MATTERS.

Influenza.—A new emergency leaflet was issued on the 27th January, 1920, by the Ministry of Health dealing with the precautions to be taken against influenza. All sanitary authorities were urged in the leaflet to consider in advance of an epidemic :—

- (1) The immediate appointment of an Emergency Committee.
- (2) A scheme for co-operation with medical practitioners and voluntary health workers.
- (3) Provision of nursing.
- (4) Sub-division of the district for anti-influenza work.
- (5) Provision of home helps.
- (6) The utilisation of the local authority's staff.
- (7) Emergency hospital provision.
- (8) The prevention or mitigation of over-crowding especially in public vehicles and conveyances.

On inquiry I found that this leaflet was being printed extensively by the district councils in the county. Public notices were displayed on the hoardings and notices were issued in the Press.

Notification of Infectious Diseases.—Weekly Return.—On February 20th Circular No. 51a was issued by the Ministry of Health stating that notified cases of infectious diseases among women and children in married quarters in barracks should be included in the weekly returns.

Notification of Infectious Diseases.—On April 23rd, 1920, Circular No. 85 was issued, having reference to notifications of acute primary pneumonia, acute influenzal pneumonia, malaria, dysentery, trench fever, acute encephalitis lethargica and ophthalmia neonatorum, in London, and the transmitting of such notifications by medical officers of health to the Metropolitan Asylums Board. An Order to this effect was issued at the same time.

Treatment of Tuberculosis—On March 9th the Ministry of Health issued a circular drawing attention to the urgent need for the provision of further residential accommodation for the treatment of tuberculosis.

Circular 103 (June 23rd, 1920), was in effect a continuation of the above circular, and dealt with extensions of time for the submission of proposals, and the payment of capital grants per bed.

Port Sanitary Administration.—On July 20th, Circular No. 107 was issued referring to the necessary measures required to be carried out by Port and Riparian Sanitary Authorities, concerning the increased prevalence of

acute infectious diseases which had arisen from conditions resulting from the war. Reference was made to the powers and duties of medical officers of health. An Order of the Ministry of Health accompanied this circular.

National Health Insurance Act, 1920.—This Act (May 20th, 1920) was of direct interest to public health work, particularly in respect of Section 4 which dealt with the discontinuance of Sanatorium Benefit (except in Ireland) as a benefit under Part I. of the 1911 Act.

Discontinuance of Sanatorium Benefit.—Circular 105 (June 22nd, 1920) was the notification of cessation of Sanatorium Benefit (as a benefit under Part I. of the National Insurance Act, 1911), from January 1st, 1921.

This circular was modified by Circular 158, issued on December 1st 1920, which announced the decision to postpone the date of termination of Sanatorium Benefit until May 1st, 1921. It was hoped that any arrangements already made could be deferred until May 1st without serious inconvenience.

Institutional Treatment of Tuberculosis.—This Circular (108—August 23rd, 1920), contained particulars and forms relating to applications for the balance of grant-in-aid for institutional treatment during 1919-1920, and for advances in respect of expenditure for 1920-1921.

Pensions of Ex-Service Men leaving Tuberculosis Sanatoria or Training Colonies.—This circular, dated October 14th, 1920, related to conditions connected with the granting of pensions to ex-service men suffering from pulmonary tuberculosis where the Ministry of Pensions has accepted the case as attributable to, or aggravated by, service.

Certain minimum rates of pension are prescribed for such men when in training colonies, following treatment in a sanatorium, such rates being conditional upon the examination of the man, every six months, by the tuberculosis officer, when called upon.

The circular also dealt with payment by the War Pensions Committee to the tuberculosis officers of a fee for completion of a report following this examination, but expressed the hope that such payment by fees would shortly be superseded by a system of lump-sum payments to local authorities for services rendered by their tuberculosis officers.

Dispensary Treatment of Tuberculosis.—Circular 149 was issued on this subject on December 3rd, 1920, offering certain suggestions as to the lines on which this service should be improved. It was recommended that the working week of a whole-time Tuberculosis Officer should not in any case be less than thirty-six hours, and that there should be one whole-time Tuberculosis Officer to about every 160 deaths from tuberculosis per annum. Treatment

at the dispensary, as distinct from diagnosis, consultation, and general supervision, should, as a rule, be limited to patients whose continued treatment requires special knowledge or technical skill, and to those who are unable to obtain other adequate medical attendance. Patients who require treatment which can, consistently with the best interests of the patient, be properly undertaken by a general practitioner of ordinary professional competence and skill, and who are either insured persons or can afford to pay for medical attendance, should not be encouraged to attend the dispensary for routine treatment. The practice of treating patients at the dispensaries on a large scale and over prolonged periods with bottles of medicine, cod liver oil, etc., and of giving medicines to ensure the attendance of patients should be discouraged.

Venereal Diseases.—In March, 1920, a circular was issued by the Ministry of Health to county and county borough medical officers of health, and to medical officers of venereal disease treatment centres. This circular dealt with a case recently before the Divorce Court, in which a question was raised as to the obligation of a doctor to give evidence of facts coming to his knowledge while attending a patient at a venereal disease clinic.

The obligation imposed upon a doctor by the Venereal Diseases Regulations is an obligation not to disclose to third parties any facts brought to light by an examination of the patient. But, so far as the Ministry are aware, a disclosure at the express request of the patient, and in the patient's own interests, would not be contrary to any principle of medical ethics, and the Ministry are advised that no different interpretation should in this respect be placed upon the regulations.

The Venereal Diseases Regulations could not override the general law requiring a witness to answer all such questions as the judge may hold to be relevant to the issue before the Court. Cases may arise in which a medical man, subpoenaed as a witness, cannot give evidence without violating the rule of professional confidence; and if in these circumstances he is involved in a conflict of duties, it would appear that he may properly appeal to the Court for protection, and the Ministry are confident that to any such appeal the Court would, so far as the law permits, give full and sympathetic consideration.

Venereal Diseases—Treatment Centres.—An up-to-date statement of approved treatment centres, with particulars of clinics and facilities for irrigation, was issued by the Ministry of Health in May, 1920. Further revised lists followed in August and December.

Supply of Milk for Expectant and Nursing Mothers and Children under Five.—On January 7th, 1920, Circular No. 65 was issued respecting the above, and enclosing two Orders, which revoked the Milk (Mothers and Children) Order, 1918, and the corresponding Order made by the Local Government Board, and re-enacted those Orders with the following modifications :—

- (1) The Order relates to milk only and not to food.
- (2) The power of the Local Government Board to require local authorities to make arrangements for the supply of milk has been omitted.
- (3) Local authorities are empowered to supply milk free or at less than cost price not merely in necessitous cases but also where such a supply is necessary because of the retail price of milk in any area.

The quantity of milk to be supplied is prescribed by the new Order.

Until further notice the following conditions were ordered to be observed :—

(a) Where by reason of the retail price of milk in any area it appears to the local authority necessary or desirable that milk should be supplied free or at less than cost price, the local authority may, in cases in which a person authorised by them in that behalf certifies that such provision of milk is necessary, supply milk to expectant and nursing mothers and children under five years of age, free, or at less than cost price in accordance with the following sub-clause (b).

(b) The quantity of milk to be supplied shall not exceed the amounts specified in the following scale :—

For children under eighteen months— $1\frac{1}{2}$ pints daily.

For children between eighteen months and five years—1 pint daily.

For nursing and expectant mothers—the quantity prescribed by the person certifying.

Memorandum on Maternity Hospitals and Homes.—This memorandum, issued in January, 1920, dealt, in much detail, with maternity hospitals and homes, their site, buildings, design and organisation. Specimen plans were given, and many notes on staffing, equipment, &c.

Supervision of Children of Soldiers, Sailors and Airmen.—On March 15th Circular No. 72 was issued stating that the services of the health visitors of the local authorities carrying out maternity and child welfare schemes would be of assistance to local War Pensions Committees, for the inspection of homes and, more rarely, for the supervision of the children of soldiers, sailors and airmen.

Infants' and Children's Homes and Hospitals.—In May, 1920, Memo. No. 18 was issued in connection with maternity and child welfare work respecting the conduct of institutions receiving children under five years of age, including resident nurseries, observation wards, etc. It was required that annual returns in respect of such institutions should be given, concerning the numbers, duration of stay, infectious diseases, etc.

Supply of Sugar to Child Welfare Centres.—In June, Memo. 20 was issued by the Ministry of Health in connection with maternity and child welfare work. This memorandum dealt with additional supplies of sugar that could be obtained for all children under two years of age, who may be certified by the medical officer to be in need of such an additional supply.

County of Kent (Notification of Births) Order, 1920.—This order, dated August 12th, 1920, brought into operation the Notification of Births Act, 1907, in certain specified areas in Kent, as though such Act had been adopted by the County Council of Kent instead of by the local district councils. This Order took effect as from September 1st, 1920.

Maternity and Child Welfare.—Circular 138 was issued on November 12th, 1920, in which great importance was attached to the work carried on by voluntary societies for maternity and child welfare.

Fees of Doctors called in by Midwives.—By a circular dated December 24th, 1920, the Ministry of Health revised the scale of fees prescribed for the payment by local supervising authorities to medical practitioners called in by midwives under Section 14 of the Midwives Act, 1918.

Local supervising authorities were requested to give notice of this revised scale to medical men in their districts, and were reminded that they were empowered by Section 14 (4) of the 1918 Act, to recover the fees except in cases of poverty. The local supervising authorities were advised to frame a scale of income in connection with such recovery of fees.

The revised scale of fees came into operation on January 1st, 1921.

Provision of Standardised w.c.'s and Fittings for Privy Conversion.—Circular No. 61 was issued by the Ministry of Health on January 5th, stating that arrangements had been made with the Ministry of Munitions whereby the supplies of standardised w.c.'s and fittings, provided in connection with the national housing scheme, may also be drawn upon by local authorities in the measures they are taking to convert pail and other closets to closets with water carriage system.

Grants to Private Persons or Bodies of Persons constructing Houses under the Housing (Additional Powers) Act, 1919.—This memorandum was issued by the Ministry of Health in January, 1920, and gave much information with regard to the housing grants of the Ministry. The amounts, conditions and

procedure to be followed in respect of these grants were explained in detail, and the schedule to the memorandum contained detailed information as to planning, construction, &c., and gave the forms of certificate to be used in connection with claims for grant.

Housing (Regulation of Building) Order, 1920.—This Order (January, 1920) gave particulars of the procedure for prohibiting the construction of works or buildings when such construction might delay the provision of dwelling accommodation, and set forth the official forms and notices which were to be used in connection with such prohibition.

The Regulation of Building (Appeal Procedure) Rules, 1920, issued with the previous Order in January, 1920, gave the procedure to be followed in appealing to the Minister of Health against any prohibition order made under that order.

General Housing Memorandum, No. 19, accompanied the Order and Rules mentioned above, and was in explanation and amplification of them.

Sanitary Conditions of Theatres, Music Halls, etc.—On August 25th, Circular No. 120 was issued respecting many complaints relating to the want of proper lavatory accommodation, insufficient ventilation, and the dirty state of the dressing rooms, etc., in theatres and music halls. It was suggested that Sanitary Authorities should arrange for all theatres, music halls and all places of public entertainment in their district, to be visited periodically by inspectors of nuisances.

Public Health (Milk and Cream) Regulations.—*Sale of Food and Drugs Acts.*—On January 21st, 1920, Circular No. 64 was issued by the Ministry of Health referring to the curtailment during the war, owing to pressure of special work, of powers and duties respecting the above-named matters. It was hoped that local authorities would take all possible steps to ensure that the powers conferred upon them were fully utilised.

Sale of Food and Drugs Acts.—A memorandum with regard to the reports of public analysts under the Sale of Food and Drugs Acts and the reports of medical officers of health under the Public Health (Milk and Cream) Regulations, 1912 and 1917, was issued by the Ministry of Health in January, 1920. The memorandum dealt with points of administrative detail, and the composition and form in which the reports should be set out.

The use of Milk.—Circular 121 was issued on October 20th, 1920, in which attention was called to the arrangement under which the Food Controller, on the advice of the Ministry of Health, issues licences permitting and regulating the use of the designations "Grade A (Certified) Milk" and "Grade A Milk," in connection with the sale of milk produced and handled in accordance with the prescribed conditions.

The Blind Persons Act, 1920, came into force on September 10th, 1920 and dealt with pensions for blind persons at the age of fifty, the power of local authorities to promote the welfare of blind persons, and the application of the War Charities Act, 1916, to charities for the blind.

A Memorandum as to the Schemes of Local Authorities under the foregoing Act accompanied the copies of the Act. It dealt with children under school age, and the education and training of children and young persons and adults. The employment of the blind, hostels, home-teaching, homes for the blind, the unemployable blind living in their own homes, and registration of the blind, were the subjects dealt with in this memorandum.

Annual Report of the Medical Officers of Health.—In January, 1920, Circular No. 66 was issued by the Ministry of Health requesting that the Council should inform themselves without further delay, as to the general condition of the health of the population of their area, and of the various health services for which the Council are responsible to the population of their area, under the Public Health Acts, Maternity and Child Welfare Act, the Midwives Acts, and the other Statutes and Regulations through which the prevention of disease, the diminution of sickness, and the general physical welfare of the people are intended to be promoted.

The Ministry of Health urged upon the Council the desirability of instructing their Medical Officer of Health to compile his report upon the lines indicated above. In this way the Ministry will be enabled more effectively to consider the valuable information afforded in such reports in respect of the health of the people in all parts of the country, and so to present to Parliament a more comprehensive survey than heretofore of this important field of national well-being.

It was further suggested that the Council should arrange for the report to be distributed locally, as widely as possible, and to take steps through the local press and otherwise to bring its contents effectively to the knowledge of the people. One of the main purposes of the compilation of such report is that, by giving it the widest possible publicity, it shall engender a popular interest in the subject, and an enlightened public opinion which shall support the local authority in realising its high responsibilities for the health of its area, and of remedying, at the earliest opportunity, the various defects which a survey may bring to light, whether arising from war conditions or from other causes. Such an increase of public knowledge and interest in these matters may also become an effective means of educating the citizens in the more important conditions of public health, of warning them against particular dangers, and of securing that highly important co-operation and confidence between them

and the health authority and its staff, which is essential to successful health administration.

It was recommended that annual health reports of medical officers of various authorities should be exchanged regularly, because in the past there has been a tendency for authorities to work too much in isolation, and it is important to realise that some of the opportunities for progress and improvement are lost unless all who are now studying public health problems can arrange to pool their experience for the common good.

SPECIAL REPORTS OF THE COUNTY MEDICAL OFFICER.

During 1920 the following special reports were made :—

Training of Midwives	March.
County Infant Welfare Centres.....	March.
Welfare of the Blind	March.
Erith Improvements Bill	March.
Pathological Laboratories	March.
X-ray apparatus at Lenham Sanatorium	June.
Prophylaxis for the Civil Population against Venereal Disease	} June.
Pathological Laboratories	June.
Sewage Disposal at Lenham Sanatorium	September.
Fees of Doctors called in by Midwives	December.
Accommodation for Maternity Cases.....	December.
Sewage Disposal at Lenham Sanatorium	December.
Compulsory Notification of Cancer	December.
Water Supply of Lydd	December.
Housing Inspection in Dartford R.D.	December.
Pathological Laboratories	December.

VITAL STATISTICS.

POPULATION.—The *total* population of the Administrative County at the middle of 1920, as estimated by the Registrar-General, was 1,046,076, viz., 750,457 in urban areas, and 295,619 in rural. These figures show an increase of 34,475 on the urban (partly accounted for by Crayford urban population, 12,000—see page 6), and a decrease of 11,815 on the rural populations of 1919. All the rural districts share in the decrease, with the exception of Dover and Strood, which show increases.

The density per acre of population in the urban districts was 6·16, varying from 32·9 in Penge to 0·3 in Lydd; and in the rural districts it was 0·35, varying from 0·91 in Dartford to 0·09 in Romney Marsh.

The estimated *civil* population of the urban districts was 726,706, and of the rural districts 294,886.

CENSUS, 1921.—The figures enumerated at the census of 1921 are available in time for a brief note to be inserted in this report. It should be noted that the figures are provisional only and subject to confirmation, but no material discrepancy is expected.

The population of the administrative County of Kent is now 1,118,129, which is an increase of 97,164 on the figures enumerated at the census of 1911. This is the second largest increase of any county in England.

The population of the combined boroughs and urban districts is 795,035, showing an increase of 77,351 since the last census; and of the combined rural districts it is 323,094, showing an increase of 19,813.

The boroughs and urban districts showing the largest increases since 1901 are Margate, with an increase of 18,017, Ramsgate 6,957, Crayford (a parish until 1920) 5,690, Bexley 5,568, Broadstairs 5,544, Herne Bay 4,092, and Folkestone 4,069.

It will be noted that five of these seven towns are coast resorts, and the following extract from the Registrar General's report is of interest in this connection:—"Some reference has already been made to the effect of postponing the census to a point of time within the period affected by the summer holiday movement. Though this movement, accelerated perhaps by the unusually fine and warm weather experienced in the month of June, 1921, must have represented only a fraction of the maximum which is attained in August, it was undoubtedly sufficient to swell the figures for the more popular watering places in a marked degree."

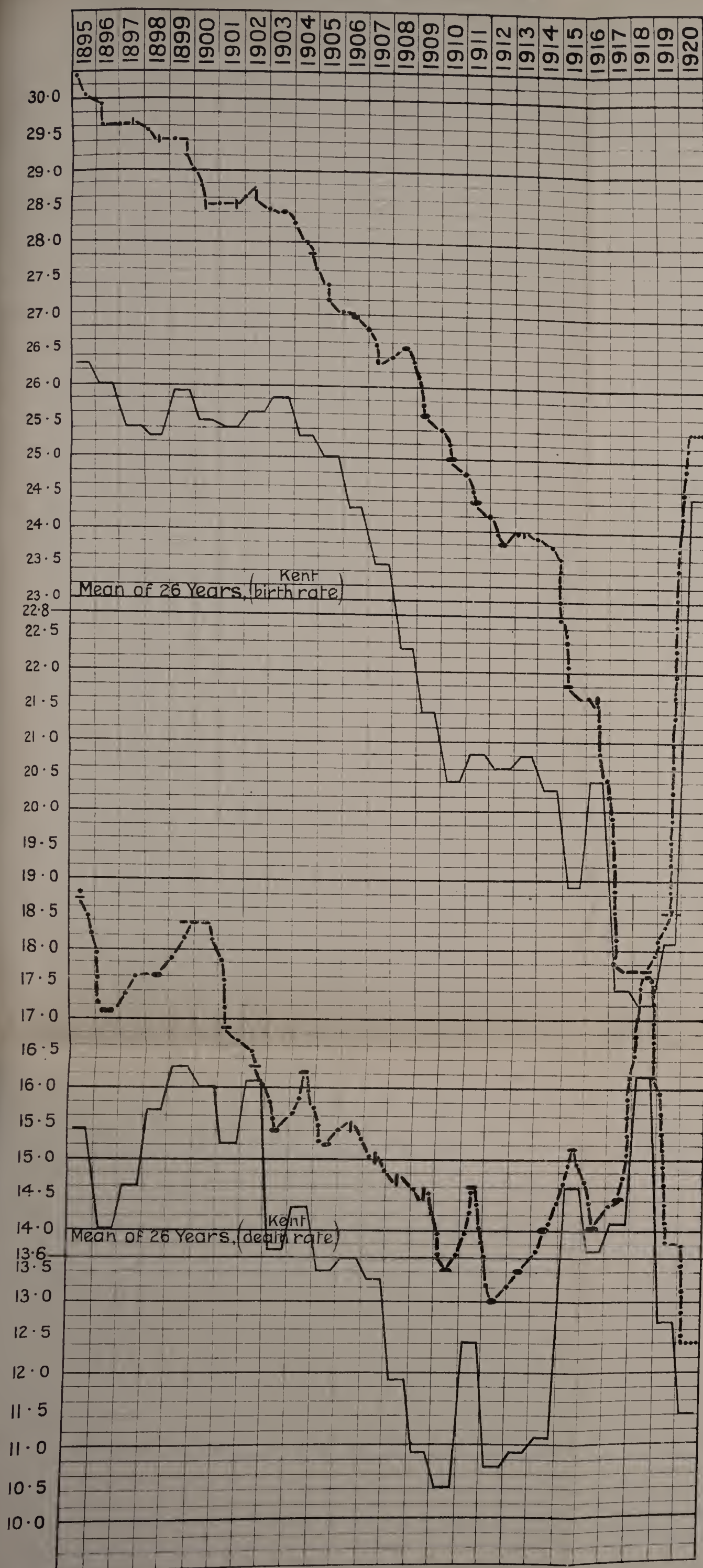
In the rural districts the most marked increases are in Bromley (4,060), Dartford (3,937) and Thanet (3,517).

Seven urban and five rural districts show decreases of population as compared with 1911, the most marked being Dover Borough (3,660) and Cranbrook rural (780).

The excess of females over males for the administrative County in 1921 is 55,561, as compared with the excess of 30,661 in 1911.

A comparison of the census, 1921, figures with the populations estimated by the Registrar General for 1920, shows the former as exceeding the latter by 72,053 for the whole county, 54,839 for the combined urban districts and 17,214 for the combined rural districts.

Diagram showing the Birth Rates and Death Rates in the County of Kent, for the years 1895-1920, inclusive, compared with similar rates for England and Wales.



The two top lines show the birth rates and the two bottom lines the death rates.
 Kent shown thus ————— England and Wales shown thus - - - - -
 The above records are for the Administrative County, from and including 1908; previous to that year records for the Registration County (shown) only are available.

BIRTHS.—During the year, the births of 25,543 living children were registered, which is 7,095 higher than the total of the previous year. Male births numbered 13,010, and females 12,533. The total excess of births over deaths was 13,966, viz., 7,224 males and 6,742 females.

The birth-rate was 24·5 per 1,000, as compared with 18·1 in 1919, and 17·2 in 1918. This is an higher rate than has been recorded since 1905, and compares with a rate of 17·2 in 1918. The rate in urban districts has increased in 1920 by 6·1 per 1,000, and in the rural districts it has increased by 7·7. As the births registered include children of soldiers as well as of civilians, the calculation of birth-rates is worked out on the estimated *total* population.

The rate for England and Wales was 25·4, compared with 18·5 in 1919, and 17·7 in 1918. The rates for Kent, shewn below, are invariably lower than the rates for the country as a whole.

Year.	1903	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Urban Districts	22·5	20·9	19·8	21·2	20·8	20·7	20·4	19·0	20·8	17·6	17·2	18·3	24·2
Rural Districts	21·9	22·6	21·8	19·8	20·1	20·9	20·1	18·7	19·6	17·1	17·3	17·5	25·2
Whole County	22·3	21·4	20·4	20·8	20·6	20·8	20·3	18·9	20·4	17·4	17·2	18·1	24·5

In the following urban districts, rates of over 27 per 1,000 were registered:—Northfleet 29·4, Queenborough 29·3, Ramsgate 28·1, Chatham 27·9, Penge 27·6, Sheerness 27·5, and Sittingbourne 27·3. The lowest urban birth-rate was recorded in Tenterden, viz., 17·1, and other low rates were recorded in Walmer 18·5, and Tunbridge Wells 18·4.

In the rural districts the highest rate recorded was in Hoo, viz., 32·7, and Malling was the next highest, with 30·2. The lowest rates were registered in Tenterden 20·5, Blean 20·6, and West Ashford 20·7.

The majority of the above districts remain fairly constant with either high or low rates, as the case may be.

STILL-BIRTHS numbered 622 as compared with 487 in 1919. In those districts where this information has not been supplied by the medical officers of health, the figures have been taken from the records of the health visitors.

TABLE 1.—Information relating to Population, Acreage, etc., in the **Urban Districts** of the County of Kent.

DISTRICT.	Total Population 1920, as estimated by Registrar General.	Civil Population 1920, as estimated by Registrar General.	Total Census popula- tion 1911.	Total Census popula- tion 1901.	Acreage inclu- sive of water.	Persons per acre, 1920. (Total popula- tion).-
Ashford	14,778	14,778	13,688	12,808	2,850	5·2
Beckenham	33,812	33,812	31,692	26,288	3,890	8·7
Bexley... ..	21,742	21,742	15,895	*13,476	4,942	4·4
Broadstairs and St. Peter's...	7,982	7,982	*9,921	*7,107	*2,770	2·9
Bromley (Borough)	36,181	36,181	33,646	27,397	4,696	7·8
Chatham (Borough)	43,578	39,966	42,250	37,057	4,356	10·1
Cheriton	7,840	4,904	7,577	7,091	1,159	6·8
Chislehurst	8,706	8,706	8,666	7,429	2,791	3·2
†Crayford	12,000	12,000	*6,234	*6,572	*2,455	4·9
Dartford	23,414	23,414	23,609	18,644	4,242	5·6
Deal (Borough)	11,869	11,604	11,295	10,581	1,114	10·7
Dover (Borough)	44,207	40,846	43,645	42,672	1,948	22·7
Erith	31,741	31,741	27,750	25,296	3,859	8·3
Faversham (Borough)	10,845	10,845	10,619	11,290	685	15·9
Folkestone (Borough)	33,219	33,002	33,042	30,379	2,325	14·3
Footscray	8,780	8,780	8,493	*6,920	2,043	4·3
Gillingham (Borough)	52,105	45,233	52,252	42,745	4,988	10·5
Gravesend (Borough)	31,486	30,455	28,115	27,196	1,260	25·0
Herne Bay	8,535	8,535	7,780	6,726	887	9·7
Hythe (Borough)	7,264	7,174	6,387	5,557	2,608	2·8
Lydd (Borough)	3,060	2,246	2,874	2,675	12,082	0·3
Maidstone (Borough)	34,905	34,469	35,475	33,516	4,008	8·8
Margate (Borough)	23,243	23,243	*28,458	*24,127	*2,463	9·5
Milton Regis	7,296	7,296	7,475	7,036	2,554	2·9
New Romney (Borough)	1,446	1,446	1,333	1,328	1,364	1·1
Northfleet	15,355	15,355	14,184	12,906	3,932	4·0
Penge	25,308	25,308	22,330	22,465	770	32·9
Queenborough (Borough)	3,485	3,485	*2,738	*1,555	*695	5·1
Ramsgate (Borough)... ..	29,338	29,338	29,603	27,733	2,306	12·8
Rochester (City)	33,849	33,389	31,384	30,590	2,936	11·6
Sandgate	2,914	2,002	2,827	2,294	430	6·8
Sandwich (Borough)... ..	3,279	3,279	3,040	3,170	707	4·7
Sevenoaks	9,917	9,917	9,182	8,106	3,259	3·1
Sheerness	17,071	15,947	17,487	18,179	864	19·8
Sittingbourne... ..	8,996	8,996	8,380	8,943	1,004	9·0
Southborough	7,079	7,079	7,001	6,977	1,702	4·2
Tenterden (Borough)	3,645	3,645	3,379	3,243	8,946	0·5
Tonbridge	15,341	15,341	14,796	12,736	1,356	11·4
Tunbridge Wells (Borough)... ..	35,795	35,795	35,697	33,373	3,991	9·0
Walmer	5,734	4,113	5,347	5,614	988	5·9
Whitstable	9,202	9,202	7,982	7,086	795	11·6
Wrotham	4,115	4,115	4,169	3,571	8,883	0·5
	750,457	726,706	717,677	650,504	121,903	6·16

*Corrected for areas transferred from rural to urban districts since the date of the census.

†See note on page 6.

It will be noted that there are now only a few districts in the County where the *total* population differs from the *civil* population. In all other districts, total and civil populations are the same.

TABLE 2.—Information relating to Population, Acreage, etc., in the **Rural Districts** of the County of Kent.

DISTRICT.	Total popula- tion, 1920, as estima- ted by the Registrar General.	Civil popula- tion, 1920, as estima- ted by the Registrar General.	Total Census popula- tion, 1911.	Total Census popula- tion, 1901.	Acreage inclu- sive of water.	Persons per acre, 1920. (Total popula- tion).
Ashford, East	13,884	13,884	13,616	13,112	54,800	0·26
Ashford, West	7,618	7,618	7,964	7,751	39,490	0·20
Blean... ..	7,361	7,361	7,597	7,054	26,884	0·28
Bridge	9,752	9,752	11,194	10,971	41,797	0·24
Bromley	22,253	22,253	21,958	18,808	28,839	0·71
Cranbrook	11,847	11,847	13,689	12,944	41,315	0·29
Dartford	32,170	32,170	*33,675	*30,960	*35,542	0·91
Dover	7,373	6,937	8,299	6,270	27,121	0·28
Eastry	13,946	13,946	13,161	12,168	43,682	0·32
Elham	7,228	7,228	7,441	6,813	37,154	0·20
Faversham	14,089	14,089	14,129	15,132	44,000	0·33
Hollingbourn	12,196	12,196	12,845	12,546	57,670	0·22
Hoo	4,133	4,133	3,965	4,262	19,727	0·21
Maidstone	15,369	15,369	16,398	15,570	34,996	0·44
Malling	23,299	23,299	24,233	24,724	38,458	0·61
Milton	13,444	13,444	12,453	12,161	27,727	0·49
Romney Marsh	2,684	2,684	2,797	2,563	30,376	0·09
Sevenoaks	24,025	24,025	24,029	22,684	63,336	0·38
Sheppey	3,921	3,921	*4,157	*2,541	*20,806	0·19
Strood	15,645	15,348	15,354	14,438	32,498	0·49
Tenterden	5,586	5,586	6,001	5,523	38,378	0·15
Thanet	9,589	9,589	*10,564	*9,494	*18,639	0·52
Tonbridge	18,207	18,207	17,769	17,247	46,853	0·39
Total in Rural Districts	295,619	294,886	303,288	285,736	850,088	0·35
„ Urban „	750,457	726,706	717,677	650,504	121,903	6·16
Total for County ..	1,046,076	1,021,592	1,020,965	936,240	971,991	1·08

It will be noted that there are now only a few districts in the County where the *total* population differs from the *civil* population. In all other districts, total and civil populations are the same.

* Corrected for areas transferred from rural to urban districts since the date of the census.

ILLEGITIMATE BIRTHS.—It will be seen that 4·88 per cent. of all births were illegitimate, as compared with 7·60 in the previous year. This is almost a return to the pre-war normal rate.

The following shows the percentage of illegitimate births, to the total births registered, in Kent, each year since 1908 :—

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
3·94	3·85	3·68	4·13	4·14	4·36	3·85	4·54	6·00	6·93	8·20	7·60	4·88

DEATHS.—The net number of deaths registered in the county was 11,577. This is 826 less than the net aggregate of the previous year. 5,786 of the deaths were of males and 5,791 females.

The tabulation of deaths in local areas has again in 1920 been limited to deaths of civilians only, and the estimated populations on which the rates are worked exclude members of H.M. Forces.

The death-rate for Kent, per 1,000 of the civil population for 1920 is 11·4, which is the lowest rate since 1914. This is only 1·0 higher than the lowest recorded rate for the county, and is a satisfactory return compared with the death-rate of 12·4 for England and Wales.

In the urban districts 8,179 net deaths were registered, which is 522 less than the previous year's total and represents a rate of 11·4 per 1,000. In the combined rural districts there were 3,398 deaths. This is a decrease of 304 on the previous year, and represents a rate of 11·2 per 1,000. The rural rate was, as has been the case since 1910, lower than the urban rate.

Of the forty-two urban districts, a reference to Table 3 shows that six areas had death-rates of less than 9·5 per 1,000. These were Hythe 9·2, Queenborough 9·2, Dartford 8·6, Tenterden 8·6, New Romney 7·7 and Chislehurst 7·3. On the other hand, only six areas had rates of over thirteen per 1,000, viz., Penge 14·0, Northfleet 13·9, Broadstairs 13·8, Deal 13·8, Ramsgate 13·7 and Southborough 13·5.

As regards rural districts, the lowest rate was again recorded in Sheppey, viz., 8·2. This was the third successive year in which this district has presented the lowest rural death-rate. The highest rate recorded among rural districts was in Elham 14·4, whilst three others had rates of thirteen per 1,000 or over, viz., Cranbrook 13·7, West Ashford 13·0 and Dover 13·0.

The record for the administrative county for the years 1908–1920 is as follows:—

Year ...	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Urban Districts	11·7	10·6	9·9	12·9	11·0	11·1	11·5	14·2	13·9	14·2	16·4	12·7	11·4
Rural Districts	12·5	11·7	11·5	11·3	9·7	10·3	10·2	13·8	13·3	13·8	15·7	12·6	11·2
Whole County	11·9	10·9	10·4	12·4	10·7	10·9	11·1	14·5	13·7	14·1	16·2	12·7	11·4

The diagram facing page 20 shows the fluctuations in the rate for the last twenty-six years, compared with the rate for England and Wales.

INFANTILE MORTALITY.—The infantile mortality rate is expressed as the rate per 1,000 births, of children dying under the age of one year. There were 25,543 births registered during the year, and 1,476 deaths of children under one year of age. The infantile mortality was therefore at the rate of 58 per 1,000 births—*the lowest on record*. The rate of mortality in towns was higher than in the country, the figures being 61 and 53 respectively, as compared with rates of 71 and 64 in the previous year. The record for the administrative county and for England and Wales, for the years 1908–1920, is as follows:—

Year ...	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920
Urban Districts	89	82	79	111	78	79	79	92	75	86	80	71	61
Rural Districts	84	77	80	103	72	80	71	82	68	77	69	64	53
Whole County	88	81	79	109	76	80	77	89	73	83	77	69	58
England and Wales	121	109	106	130	95	109	105	110	91	97	97	89	80

TABLE 3.—Showing the total numbers of deaths, deaths under one year of age, and the numbers of births—legitimate and illegitimate—which were registered in the different **Urban Districts** in the County of Kent during the year 1920.

DISTRICT.	DEATHS.		BIRTHS.				INFANTILE MORTALITY.				No. of still-births.
	Number of deaths of civilians at all ages.	Net death-rate per 1,000 of the civil popu- lation.	Legitimate.	Illegitimate.	Total.	Birth-rate. (Total population).	Deaths of Infants under one year of age.			Deaths of Infants under one year of age per 1,000 Births.	
							Legitimate.	Illegitimate.	Total.		
Ashford	182	12·4	304	13	317	21·5	19	2	21	67	6
Beckenham	342	10·2	631	37	668	19·8	35	6	41	62	16
Bexley... ..	222	10·3	538	25	563	25·9	34	9	43	77	19
Broadstairs and St. Peter's...	110	13·8	160	10	170	21·3	9	2	11	65	4
Bromley (Borough)	358	9·9	700	55	755	20·9	42	8	50	67	20
Chatham (Borough)	514	12·9	1158	55	1213	27·9	70	16	86	71	46
Cheriton	49	10·0	188	12	200	25·6	7	—	7	35	3
Chislehurst	63	7·3	176	7	183	21·1	7	—	7	39	1
*Crayford	33	11·0	64	1	65	21·5	5	—	5	77	—
Dartford	200	8·6	523	21	544	23·3	21	3	24	45	11
Deal (Borough)	160	13·8	294	17	311	26·3	10	—	10	33	6
Dover (Borough)	479	11·8	1066	51	1117	25·3	77	7	84	76	26
Erith	306	9·7	786	27	813	25·7	49	1	50	62	15
Faversham (Borough)	130	12·0	276	9	285	26·3	10	1	11	39	6
Folkestone (Borough)	345	10·5	672	52	724	21·8	29	10	39	54	24
Footscray	91	10·4	166	5	171	19·5	6	1	7	41	3
Gillingham (Borough)	514	11·4	1321	37	1358	26·1	73	4	77	57	60
Gravesend (Borough)	355	11·7	791	31	822	26·2	48	5	53	65	35
Herne Bay	92	10·8	158	8	166	19·5	13	1	14	85	4
Hythe (Borough)	66	9·2	151	5	156	21·5	7	2	9	58	3
Lydd (Borough)	22	9·8	57	2	59	19·3	1	1	2	34	2
Maidstone (Borough)	397	11·6	826	40	866	24·9	45	4	49	57	19
Margate (Borough)	297	12·8	536	34	570	24·6	34	5	39	69	20
Milton Regis	75	10·3	179	7	186	25·5	11	—	11	60	8
New Romney (Borough)	11	7·7	29	3	32	22·2	1	—	1	32	—
Northfleet	212	13·9	435	16	451	29·4	27	1	28	63	18
Penge	352	14·0	663	34	697	27·6	33	3	36	52	16
Queenborough (Borough)	32	9·2	101	1	102	29·3	9	—	9	89	3
Ramsgate (Borough)... ..	399	13·7	777	47	824	28·1	50	8	58	71	29
Rochester (City)	381	11·5	778	25	803	23·8	48	6	54	68	19
Sandgate	23	11·5	66	3	69	23·7	—	1	1	15	1
Sandwich (Borough)	41	12·6	75	2	77	23·5	6	—	6	78	1
Sevenoaks	105	10·6	184	8	192	19·4	5	1	6	32	2
Sheerness	169	10·6	451	17	468	27·5	24	2	26	56	6
Sittingbourne	109	12·2	232	13	245	27·3	11	3	14	58	9
Southborough	95	13·5	149	14	163	23·1	5	1	6	37	5
Tenterden (Borough)	31	8·6	58	4	62	17·1	2	—	2	33	2
Tonbridge	174	11·4	332	21	353	23·1	17	3	20	57	9
Tunbridge Wells (Borough)... ..	450	12·6	609	47	656	18·4	36	5	41	63	15
Walmer	47	11·5	105	1	106	18·5	4	—	4	38	—
Whitstable	88	9·6	192	6	198	21·6	8	—	8	41	5
Wrotham	58	14·1	103	6	109	26·5	4	1	5	46	3
TOTAL URBAN	8,179	11·4	17,060	829	17,889	24·2	952	123	1075	61	500

*See note on page 6.

TABLE 4.—Showing the total numbers of deaths, deaths under one year of age, and the numbers of births—legitimate and illegitimate—which were registered in the different **Rural Districts** in the County of Kent during the year 1920.

DISTRICT.	DEATHS.		BIRTHS.				INFANTILE MORTALITY.				No. of still births.
	Number of deaths of civilians at all ages.	Net death-rate per 1,000 of the civil population.	Legitimate.	Illegitimate.	Total.	Birth-rate. (Total population).	Deaths of Infants under one year of age.			Deaths of Infants under one year of age per 1,000 births.	
							Legitimate.	Illegitimate.	Total.		
Ashford, East	168	12·2	322	11	333	24·0	16	2	18	55	3
Ashford, West	99	13·0	151	6	157	20·7	10	1	11	71	1
Blean	89	12·1	145	6	151	20·6	6	3	9	60	1
Bridge... ..	109	11·2	254	11	265	27·2	15	1	16	61	7
Bromley	269	12·1	522	26	548	24·7	27	4	31	57	3
Cranbrook	162	13·7	268	24	292	24·7	12	4	16	55	7
Dartford	382	9·3	1082	54	1,136	27·7	52	4	56	50	14
Dover	90	13·0	154	15	169	23·0	12	3	15	89	3
Eastry... ..	135	9·7	326	19	345	24·8	12	1	13	38	8
Elham... ..	104	14·4	146	10	156	21·6	4	1	5	33	—
Faversham	137	9·8	341	23	364	25·9	19	3	22	61	11
Hollingbourn... ..	144	11·9	251	28	279	22·9	14	1	15	54	8
Hoo	34	8·3	130	5	135	32·7	5	1	6	45	3
Maidstone	197	12·9	371	31	402	26·2	18	2	20	50	11
Malling	261	11·3	664	39	703	30·2	37	3	40	57	13
Milton... ..	158	11·8	354	15	369	27·5	17	2	19	52	9
Romney Marsh	26	9·7	68	4	72	26·9	5	—	5	70	1
Sevenoaks	249	10·4	487	30	517	21·6	18	5	23	45	7
Sheppey	32	8·2	106	3	109	27·8	3	—	3	28	—
Strood... ..	183	12·0	401	16	417	26·7	21	2	23	56	4
Tenterden	62	11·1	113	1	114	20·5	8	—	8	71	3
Thanet	106	11·1	219	14	233	24·3	5	3	8	35	3
Tonbridge	202	11·1	364	24	388	21·4	13	6	19	49	2
Total in Rural Districts ...	3,398	11·2	7,239	415	7,654	25·2	349	52	401	53	122
„ in Urban Districts ...	8,179	11·4	17,060	829	17,889	24·2	952	123	1,075	61	500
Total for County	11,577	11·4	24,299	1,244	25,543	24·5	1,301	175	1,476	58	622

The following summary shows a comparison of the death-rates among illegitimate children per thousand such births, with the death-rates among legitimate infants, for each of the years 1908 to 1920. The differences are very striking :—

Year.		1908	1909	1910	1911	1912	1913	1914	1915	*1916	*1917	1918	1919	1920
Rate of deaths per 1000 births among	Legitimate Infants	80	77	75	104	74	76	73	86	69	80	71	63	54
	Illegitimate Infants	178	164	185	228	138	149	175	150	118	121	144	147	141

* For 1916 and 1917, in several districts, the deaths were not divided into legitimate and illegitimate, in which cases they were regarded as legitimate. Therefore, the actual disparity of rates for those two years is greater than is shown by the figures.

The variations in the infantile mortality rates in the different districts are considerable and urban rates are recorded from 15 in Sandgate to 89 in Queenborough. The lowest rates after Sandgate were New Romney 32, Sevenoaks 32, Deal 33 and Tenterden 33 ; and the highest rates after Queenborough were Herne Bay 85, Sandwich 78, Bexley 77 and Crayford 77.

In the rural districts the lowest rate recorded was in Sheppey—28, whilst relatively high rates were recorded in Dover 89, West Ashford 71, Tenterden 71 and Romney Marsh 70.

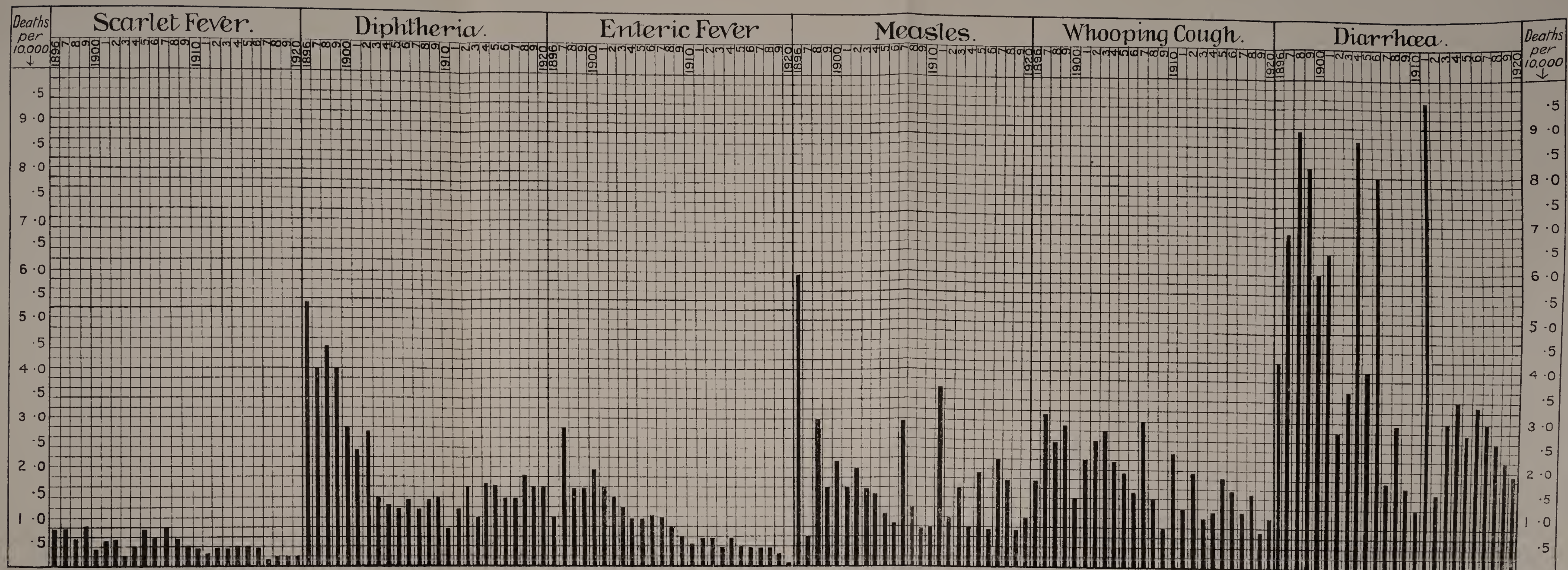
ZYMOTIC MORTALITY.

The following table gives particulars relating to the prevalence of, and the mortality from the seven chief zymotic diseases [small-pox, scarlet fever, diphtheria (and membranous croup), enteric (and typhus and continued fevers), measles, whooping cough and diarrhoea (including enteritis)], among the civil population of Kent and a comparison with the mortality recorded in the whole of England and Wales for the year 1920 :—

Disease.	No. of Cases.	No. of Deaths.	Rates of Deaths.		Death-rate in England and Wales in 1920 per 1,000 Living Persons.
			Per 100 Persons Attaeked.	Per 1,000 Persons Living.	
Small-pox	9	1	11·12	0·001	0·00
Searlet Fever	2806	14	0·50	0·02	0·04
Diphtheria and Membranous Croup ...	2391	159	6·65	0·16	0·15
Enterie, Typhus and Continued Fevers ...	126	6	4·77	0·006	0·01
Measles and Rubella...	Not notifi-able	95	?	0·10	0·19
Whooping Cough ...	do.	97	?	0·10	0·11
*Diarrhoea, including Enteritis (under 2 years)...	do.	123	?	*4·82	*8·3
Totals	—	495	--	0·49	—

* The figures relating to diarrhoea have reference to children dying under two years of age per 1,000 births.

Diagram showing the Death-rates (per 10,000 persons living) from Scarlet Fever, Diphtheria, Enteric Fever, Measles, Whooping Cough, and Diarrhœa, in the County of Kent, for each of the years 1896 to 1920 inclusive.



The above records are for the Administrative County from and including 1908; previous to that year, records for the Registration County (shown) only are available.

Compared with the previous year, it is noted that there was a large increase in the numbers of cases of scarlet fever, diphtheria and enteric fever notified, although the mortality rate amongst the persons attacked was considerably lower.

The diagram facing this page is interesting as showing a comparison of the death-rates in Kent per 10,000 persons living, from each of the zymotic diseases except small-pox, during the last twenty-five years.

ISOLATION HOSPITALS.

The summary on pages 26-29 gives full details of the infectious diseases (including small-pox) hospital provision in the county. The following are a few notes of interest taken from the reports or summaries of the local medical officers of health :—

Bexley.—The drainage of the hospital needs improvement, and this will shortly be taken in hand.

Broadstairs.—There is an insufficient number of beds provided for cases of diphtheria, and increased accommodation is also required for cases in which diagnosis is doubtful, and for cases of cross infection. There is an insufficient number of trained nurses on the staff.

Dartford.—Further accommodation is required and is being provided at the time of writing.

Folkestone.—Two wards and an administrative block were taken over from the military authorities, replacing an old corrugated iron building. The fence round the small-pox hospital requires repairing, and a caretaker's lodge is needed.

Gillingham.—The old galvanised iron and wooden structures should be replaced with brick buildings, it being very difficult to cleanse and purify the inside wooden lining. Having had a run of diphtheria cases, the enteric wards, and part of the scarlet fever block, have had to be utilised to take in the cases requiring hospital treatment. A serious drawback is the lack of a proper convalescent block. The bedrooms for the nursing staff are very unsuitable.

Herne Bay.—During the year the nurses' bedroom was converted into a patients' bathroom, and the hospital was re-arranged to enable two diseases to be treated at the same time. The medical officer of health is of opinion that the building should no longer be used as an isolation hospital, as it is not suitable.

Maidstone.—A site has been acquired for the erection of a hospital for cases of small-pox on the outskirts of the borough, and plans have been

DISTRICT.	Number of Beds.	Number of separate Diseases.	Remarks.	Disinfect- tor pro- vided.	Number of Beds.	Remarks.
URBAN DISTRICTS.						
Ashford U. ...	24	3	—	Yes	(6)	By arrangement—six beds in the West Ashford R. hospital, supplemented by tents if necessary
Beckenham U. ...	113	3	Joint hospital with Bromley B., Chislehurst U., Footscray U., Bromley R.	Yes	23	Joint hospital with Bromley B., Chislehurst U., Footscray U., Bromley R. Capable of large extension
Bexley U. ...	40	2	Pauper cases are treated at Bow Arrow Hospital, Dartford	No	?	Arrangement with Metropolitan Asylums Board
Broadstairs U. ...	120	3	Joint hospital with Margate B., Ramsgate B. and Thanet R.	Yes	16	Joint hospital with Margate B., Ramsgate B. and Thanet R.
Bromley B. ...	—	—	See Beckenham above ...	—	—	See Beckenham above
Chatham B. ...	80	4	Joint hospital with Rochester City. Also provision for a limited number of cases of cerebro-spinal fever and for selected cases of measles.	Yes	20	Joint hospital with Rochester C. Cases also received from Hoo R. Capable of large extension
Cheriton U. ...	28	1	Also receives cases from Hythe B. and Elham R., by agreement	No	—	Arrangement with Hythe B.
Chislehurst U. ...	—	—	See Beckenham above ...	—	—	See Beckenham above
Crayford ...	—	—	See Dartford Rural ...	—	—	See Dartford Rural
Dartford U. ...	64	2	Joint hospital with Dartford R.	Yes	?	Arrangement with Metropolitan Asylums Board
Deal B. ...	16	2	Joint hospital with Walmer U.	Yes	—	Arrangement with Easby R.
Dover B. ...	50	3	Also receives cases from Dover R.	Yes	20	Also receives cases from Dover R. Capable of large extension
Erith U. ...	50	3	—	Yes	?	Arrangement with Metropolitan Asylums Board
Faversham B. ...	16	?	Cases admitted from Faversham R.D., if necessary, and <i>vice-versâ</i> . Four wards, but the number of diseases which can be treated concurrently depends upon sex of patients	Yes	10	Also admits cases from Faversham R.
	{	1	Formerly the small-pox hospital, now reserved for cerebro-spinal meningitis in the borough and rural district			
	{	8				

DISTRICT.	Number of Beds.	Number of separate Diseases.	Remarks.	Disinfectant provided.	Number of Beds.	Remarks.
Folkestone B.	46	3	Also receives cases from Sandgate U.	Yes	4	Space available for erection of tents, &c., if necessary
Footscray U.	—	—	See Beekenham above	—	—	See Beekenham above
Gillingham B.	50	3	—	Yes	16	Wigmore hospital
Gravesend B.	36	2	—	—	24	Cases admitted from Strood R. if required
Herne Bay U.	11	2	Also an arrangement with Blean R. D. to send cases to the Isolation Hospital of that Council, in case of necessity	—	12	Joint hospital with Blean R. D.
Hythe B.	—	—	See Cheriton above. There is also a site which can be utilised by the erection of tents in case of emergency	—	?	Small hospital, for use as joint hospital with Cheriton U. D.
Lydd B.	15	3	—	Yes	—	See under New Romney B. below
Maidstone B.	20	2	—	Yes	—	Hospital of six beds is proposed. See note on page 25.
Margate B.	—	—	See Broadstairs above	—	—	See Broadstairs above
Milton Regis U.	102	4	Joint hospital with Sittingbourne U. and Milton R. Receives also cases from Sheerness U. and Queenborough B.	Yes	20	Joint hospital, capable of large extension, with Sittingbourne U. and Milton R. Receives also cases from Sheerness U., Queenborough B. and Sheppey R.
New Romney B.	—	—	Cases admitted to Romney Marsh hospital	—	12	Joint hospital with Lydd B. and Romney Marsh R.
Northfleet U.	—	—	Cases admitted to Strood R. hospital	—	6	—
Penge U.	?	6	Arrangements with Borough of Croydon for admission and treatment in the Isolation Hospital of that Council	Yes	?	Arrangement with Surrey County Council
Queenborough B.	—	—	See Milton Regis above	—	—	See Milton Regis above
Ramsgate B.	—	—	See Broadstairs above	—	—	See Broadstairs above
Rocheester C.	—	—	See Chatham above	—	—	See Chatham above
Sandgate U.	—	—	Cases admitted to Folkestone hospital	—	4	—
Sandwich B.	—	—	Cases admitted to Eastry R. hospital	—	—	Cases admitted to Eastry R. hospital

Continued.

INFECTIOUS DISEASES HOSPITALS.

SMALL-POX HOSPITALS.

Continued.

DISTRICT.	Number of Beds.	Number of separate Diseases.	Remarks.	Disinfect- or pro- vided.	Number of Beds.	Remarks.
Sevenoaks U. ...	12	3	Arrangement with Sevenoaks R.D. for treatment, owing to difficulties of staffing	—	—	Cases admitted to Southborough, Ton- bridge and Tunbridge Wells Joint Hospital
Sheerness U....	—	—	See Milton Regis above	—	—	See Milton Regis. above
Sittingbourne U. ...	—	—	See Milton Regis above	—	—	See Milton Regis above
Southborough U. ...	6	2	—	—	24	Joint hospital (capable of large exten- sion) with Tonbridge U., Tonbridge R. and Tunbridge Wells B.
Tenterden B. ...	—	—	No hospital available. See note on page 30.	—	—	—
Tonbridge U. ...	37	3	—	—	—	See Southborough above
Tunbridge Wells B. ...	57	4	—	Yes	—	See Southborough above
Walmer U. ...	—	—	See Deal above ... R.D. hospital	—	—	Arrangement with Eastry R.D.
Whitstable U. ...	—	—	Cases admitted to Blean R.D. hospital	No	10	Capable of large extension
Wrotham U. ...	8	2	—	No	16	—
RURAL DISTRICTS.						
Ashford, East ...	14	2	—	Yes	6	—
Ashford, West ...	8	1	Disinfectant not provided, but one is available close to the hospital	No	12	Receives also cases from Ashford U.D.
Blean... ..	26	3	Receives cases from Whitstable and Herne Bay in case of necessity	—	—	See Herne Bay U. above
Bridge ...	34	3	—	Yes	—	Arrangement with Eastry R.D.
Bromley ...	—	—	See Beckenham above ...	—	—	See Beckenham above
Cranbrook ...	5	1	See note on page 30 under Tenterden	—	—	—
Dartford ...	—	—	See Dartford U. above...	—	?	Arrangement with Metropolitan Asylums Board
Dover ...	—	—	Cases admitted to Dover Borough hospital ...	—	—	Cases admitted to Dover Borough hospital
Eastry ...	25	3	Receives cases from Sandwich B. ...	No	30	Cases admitted, by arrangement, from Deal B., Sandwich B., Walmer U. and Bridge R.

DISTRICT.	Number of Beds.	Number of separate Diseases.	Remarks.	Disinfectant provided.	Number of Beds.	Remarks.
Elham ...	10	1	—	No	—	In cases of necessity, tents will be used in an isolated spot at a little distance from the infectious diseases hospital
Faversham ...	36	5	Cases admitted from Faversham B. if necessity arises, and <i>vice versa</i>	Yes	—	Cases admitted, by arrangement, to Faversham Borough hospital
Hollingbourn ...	—	—	See Maidstone R. below	—	16	Cases admitted from Maidstone Rural
Hoo ...	12	2	—	Yes	—	Cases admitted to Chatham and Rochester joint hospital
Maidstone ...	17	2	Receives also cases from Hollingbourn Rural, by arrangement.	Yes	—	Cases admitted to Hollingbourn hospital—See above
Malling ...	25	3	—	Yes	8	—
Milton ...	—	—	See Milton Regis above	—	—	See Milton Regis, above
Romney Marsh ...	12	2 (? 4)	Cases admitted from New Romney B.	—	—	See New Romney B., above
Sevenoaks ...	50	3	—	—	—	Cases admitted to the Southborough, Tonbridge and Tunbridge Wells joint hospital
Sheppey ...	8	1 (? 2)	—	No	—	See Milton Regis, above
Strood ...	50	3	Cases admitted from Northfleet U. and Gravesend B., if required	Yes	—	Cases admitted to Gravesend or Port of London hospitals
Tenterden ...	—	—	No accommodation available. See note on page 30.	—	—	—
Thanet ...	—	—	See Broadstairs U., above	—	—	See Broadstairs U., above
Tonbridge ...	21	3	—	—	—	See Southborough U., above

deposited with the Ministry of Health. There will be accommodation for six cases, and there is sufficient land on the site for further extension if and when necessary.

Ramsgate.—It is urged that a motor ambulance, serving the several local authorities in Thanet, would lead to greater efficiency, and should prove more economical than the present system. This matter was under consideration at the end of the year.

Sheerness.—The medical officer of health advocates the provision of a motor ambulance instead of the present horse-drawn conveyance.

Tenterden.—Application was made during the year for a Provisional Order constituting a “Cranbrook and Tenterden Joint Hospital District” for the provision, maintenance and management of an infectious diseases hospital. A public enquiry into this application was held. The Ministry of Health intimated their unwillingness to grant the Order unless the resolution limiting capital outlay was withdrawn, and this was agreed to by the Health Committee and the Council.

Tunbridge Wells.—An extension of the administrative block is needed.

Whitstable.—A steam disinfecter has been purchased, but was not installed at the time of writing

Malling Rural.—One block in the isolation hospital is without either nurse's bedroom or bathroom, and for the former purpose the kitchen has to be used on occasion.

Thanet Rural.—(See Broadstairs U.) There are 120 beds and cots in the hospital, but the medical officer of health is of opinion that an observation block and an admission block are required, and he also suggests an increase in the number of beds set apart for diphtheria and a corresponding reduction in the beds for scarlet fever.

Blean Rural.—Improvement is needed in the sanitary accommodation. On a basis of cubic space per bed there are nine beds in excess in this hospital.

NOTIFIABLE INFECTIOUS DISEASES.

The county death-rates from the chief notifiable diseases are set out on page 24, and table 7 shows the attack-rates of scarlet fever, diphtheria and enteric fever in each sanitary district, together with a comparison with the rates in the combined counties, &c.

Certain points respecting these different diseases require separate mention.

SMALL-POX.—Numbers of cases notified, and mortality, during the past thirteen years :—

Year.	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920.	
													Kent.	England and Wales.
Cases notified	15	0	2	27	3	1	2	2	0	0	5	23	9	263
Death Rate	0·00	<i>nil</i>	0·00	0·00	<i>nil</i>	<i>nil</i>	0·00	<i>nil</i>	<i>nil</i>	<i>nil</i>	<i>nil</i>	0·003	0·001	0·00

Tables 5 and 6 show the districts in which the cases of small-pox occurred. There are no comments of extraordinary interest in the reports of the district medical officers of health.

Several of the medical officers of health comment upon the exemptions from vaccination. Dr. Bannister, of Ramsgate, in referring to the supervision of some possible contacts, remarks:—"The introduction of this disease into the borough might prove a very serious and a very expensive matter, owing to the large proportion of the population unprotected by vaccination."

SMALL-POX AND VACCINATION.—A report on the above subject was issued by the Ministry of Health in August, 1921. This report is of such importance that a few observations will be of interest to all concerned.

Small-pox is one of the most infectious diseases and is always present in some parts of the world, and may be introduced into England from abroad at any time.

It was not until the summer of 1798 when Edward Jenner published his "Inquiry into the Causes and Effects of the Variolæ Vaccinæ," that the practice of inoculating with the matter of cow-pox, became general.

The system of immediate isolation in hospital of small-pox when it occurs in a district, together with the prompt vaccination of contacts, has proved of great value in limiting the spread of the disease.

It can be stated that although vaccinated persons under ten years of age have contracted small-pox, such attacks have been as a rule very mild and a fatal issue has rarely occurred.

Certificates of conscientious objection became registerable from August 12th, 1898. In the year 1899, there were 929,189 births, 617,113 primary vaccinations of infants, and 33,573 children legally exempted from vaccination, *i.e.*, the percentages of vaccinations and of exemptions to births were 66·4 and 3·6 respectively.

TABLE 5.—Shewing the Number of Cases of Infectious Disease among the Civil Population notified in each of the **Urban Districts** in the County of Kent, and the Number of such Cases which were treated in Hospital, during the year 1920.

DISTRICT.	Small-pox	Diphtheria including Membranous Croup	Erysipelas.	Fevers.			Cerebro-spinal Meningitis.	Polio-myelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria.	Encephalitis Lethargica.	Pneumonia.	Cases removed to Hospital.							
				Scarlet.	Enteric.	Puerperal.									Small pox.	Diphtheria.	Scarlet Fever.	Enteric Fever.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Others.
Ashford	38	4	20	..	...	..	...	...	18	1	1	...	1	...	38	17	...	...	...	...	...
Beckenham	59	14	117	9	1	...	...	...	38	12	6	3	21	...	45	92	6	...	...	...	1
Bexley	51	3	163	...	3	...	...	2	21	3	1	...	...	...	28	148	...	..	...	...	...
Broadstairs & St. Peter's	62	4	27	1	...	...	...	...	37	6	...	...	8	...	58	25	1	...	...	...	...
Bromley (Borough) ..	106	17	100	1	5		1	...	8	35	15	8	2	38	...	88	88		1	...	...	...
Chatham (Borough)...	...	261	8	110	11	3	...	1	12	58	10	5	1	11	...	187	87	8	...	...	...	2
Cheriton	5	1	7	...	...	...	...	1	4	3	...	...	1	...	1	7	...	...	...	...	...
Chislehurst	29	4	22	..	1	...	...	...	8	2	...	..	2	...	18	17	...	...	...	...	1
Crayford ...	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Dartford	199	20	210	8	1	...	...	1	26	2	3	...	1	...	192	116	8	...	10	...	12
Deal (Borough)	2	..	22	1	1	...	..	1	30	4	...	...	...	...	...	20	1	...	...	...	1
Dover (Borough)	134	6	133	4	...	1	...	14	87	7	1	...	...	...	99	85	4	...	..	...	...
Erith ...	5	95	23	132	3	1	...	...	3	47	18	5	...	26	5	93	118	3	...	...	...	...
Faversham (Borough)...	...	19	4	29	6	...	...	1	2	29	6	2	...	1	...	18	23	6	...	10	1	2
Folkestone (Borough)...	...	45	14	121	5	5	...	...	8	84	33	7	...	32	...	38	100	5	..	...	...	...
Footseray	49	1	36	...	...	1	...	2	13	2	4	...	4	...	43	28	...	1	...	...	...
Gillingham (Borough)...	...	116	22	129	1	...	...	...	3	43	14	4	1	...	...	85	86	1	...	...	...	...
Gravesend (Borough)...	2	62	14	28	7	.	..	...	2	21	2	1	...	..	2	39	16	5	...	10	...	1
Herne Bay	10	4	34	2	...	...	...	...	27	7	2	...	9	...	10	32	1	...	...	...	...
Hythe (Borough)...	...	11	...	3	...	...	...	...	...	18	3	...	...	...	...	5	2	...	...	...	...	...
Lydd (Borough)...	2	...	...	...	...	...	...	3	...	...	...	...	...	..	...	...	...	...	...	...
Maidstone (Borough)...	...	37	11	65	3	1	...	...	7	39	11	21	...	19	...	36	58	3	...	19	..	...
Margate (Borough)...	...	75	14	79	2	1	...	...	5	92	23	3	...	35	...	68	70	1	...	...	...	..
Milton Regis	14	6	31	1	...	...	...	...	9	...	3	...	16	...	14	30	...	...	...	...	...
New Romney (Borough)...	2	...	...	...	...	...	...	3	...	1	...	2	...	..	...	...	...	...	...	...
Northfleet	80	9	27	3	1	...	...	...	13	7	7	1	14	...	3	8	...	...	...	...	...
Penge	52	8	83	2	2	...	...	4	20	9	2	...	8	...	37	58	2	...	7	4	3
Queenborough (Borough)	14	...	8	1	...	...	...	...	4	...	12	...	1	...	6	8	1	...	2	...	...
Ramsgate (Borough)...	..	35	6	92	3	2	1	...	12	114	25	34	...	7	...	35	85	3	...	..	...	1
Rochester (City)	54	7	60	3	1	...	...	6	16	7	4	...	12	...	37	50	2	...	...	...	...
Sandgate...	...	3	...	19	...	...	...	...	...	5	2	...	...	...	...	2	9	...	...	...	...	...
Sandwich (Borough)...	4	...	...	...	...	...	3	1	...	...	1	...	...	4	...	...	...	...	...
Sevenoaks	4	3	6	1	...	...	...	2	...	...	...	...	...	...	3	5	1	...	...	...	...
Sheerness	9	2	47	6	...	...	...	5	26	5	8	..	3	...	8	44	4	...	...	...	...
Sittingbourne	37	2	29	3	...	...	...	1	12	3	5	...	14	...	36	29	3	..	1	...	...
Southborough	7	5	19	...	..	..	...	...	8	3	...	...	3	...	6	19	...	...	...	...	...
Tenterden (Borough)...	...	1	...	1	1	...	...	...	..	...	...	...	..	...	...	...	..	...	...	..	...	...
Tonbridge	19	7	38	1	1	...	..	2	19	2	1	...	2	...	18	38	1	...	...	...	1
Tunbridge Wells (Borough)...	...	64	19	107	4	1	...	...	2	42	15	9	1	86	...	62	107	3	...	4	2	3
Walmer ...	1	...	...	1	..	1	...	...	...	6	...	..	...	...	1	...	...	...	...	...	...	..
Whitstable	5	3	17	1	...	...	...	1	27	5	2	...	23	...	1	4	...	...	...	...	...
Wrotham	5	...	..	...	..	...	...	...	...	...	...	...	...
TOTAL URBAN...	81863	269	2176	94	32		4	2	106	1110	268	162	9	401	81457	1733	73	2	63	7	28	

* All cases of infectious disease in Crayford Urban were included in the figures for Dartford Rural for 1920.

TABLE 6.—Showing the number of Cases of Infectious Disease among the Civil Population notified in each of the **Rural Districts** in the County of Kent, and the Number of such Cases which were treated in Hospital, during the year 1920.

DISTRICT.	Small-pox.	Diphtheria including Membranous Croup	Erysipelas.	Fevers.			Cerebro-spinal Meningitis	Polio-myelitis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Malaria.	Encephalitis Lethargica.	Pneumonia.	Cases removed to Hospital.							
				Scarlet.	Enteric.	Puerperal.									Small-pox.	Diphtheria.	Scarlet Fever.	Enteric Fever.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.	Other forms of Tuberculosis.	Other Diseases.
Ashford, East ...	15	2	18	...	...	1	1	2	19	2	2	...	...	...	12	15	...	1	...	...	...
Ashford, West ...	19	3	14	2	1	...	...	...	10	...	4	...	4	...	16	6	...	...	...	..	...
Blean ...	5	11	8	...	...	...	...	...	10	6	...	...	...	...	5	6	...	..	...	...	...
Bridge ..	20	2	25	...	2	...	...	1	23	5	2	...	1	...	20	17	...	...	...	...	..
Bromley ...	77	6	63	3	1	2	...	...	28	2	...	1	...	...	72	54	1	...	...	...	...
Cranbrook ...	4	3	19	1	1	...	...	...	17	...	1	...	...	...	3	9	...	...	...	...	...
*Dartford ...	153	37	193	1	3	1	...	3	34	7	5	1	...	...	...	...	...	1	...	3	...
Dover ...	5	...	2	...	...	...	...	...	9	...	...	...	...	...	5	1	...	...	...	...	...
Eastry ..	7	2	20	1	...	...	...	...	23	3	...	...	...	...	4	7	...	...	...	...	...
Elham ...	9	2	11	...	...	...	...	...	10	1	...	...	8	...	2	7	...	...	...	...	...
Faversham ...	5	5	13	5	2	...	...	...	29	7	3	...	2	...	5	13	3	...	3	...	2
Hollingbourn ..	19	4	36	3	2	...	...	1	14	...	1	...	...	...	11	20	2	...	...	...	..
Hoo ...	3	...	4	...	1	...	...	...	...	...	11	..	...	...	3	4	...	...	...	...	...
Maidstone ...	17	1	21	3	1	...	...	2	12	2	3	...	6	...	15	16	...	...	...	...	1
Malling ...	1	29	9	60	1	3	...	...	1	31	4	6	...	...	1	20	57	1	...	...	...
Milton ..	45	1	38	...	1	...	...	2	14	...	2	...	3	...	45	33	...	...	...	...	...
Romney Marsh	1	2	2	...	...	...	...	...	3	1	1	...	...	...	...	...	...	...	...	...	...
Sevenoaks ...	31	6	12	2	1	1	1	1	24	2	5	...	1	...	29	10	2	1	..	...	1
Sheppey ...	2	...	1	...	...	...	...	...	3	1	1	...	2	..	1	...	...	...	...	...	...
Strood ...	26	2	33	1	...	...	...	...	16	4	...	...	..	...	16	29	1	...	...	...	...
Tenterden ...	...	1	3	...	...	...	...	...	6	...	...	...	...	...	...	...	...	..	...	...	...
Thanet ...	13	1	11	5	...	...	...	...	27	6	...	...	1	...	11	9	...	...	...	...	...
Tonbridge ...	23	10	28	4	1	...	..	2	17	2	2	...	6	...	22	28	2	...	..	...	...
Total in Rural Districts ...	1	528	110	635	32	20	5	2	15	379	55	49	2	34	1	317	341	12	3	3	3	4
Total in Urban Districts ...	8	1863	269	2176	94	32	4	2	106	1110	268	162	9	401	8	1457	1733	73	2	63	7	28
Total in County	9	2391	379	2811	126	52	9	4	121	1489	323	211	11	435	9	1774	2074	85	5	66	10	32

*Includes figures for Crayford for the whole of the year.

TABLE 7.—Incidence per 1,000 of the population of notified cases of Scarlet Fever, Diphtheria and Enteric Fever.

URBAN.				RURAL.				
District.	Diphtheria.	Scarlet Fever.	Enteric Fever.	District.	Diphtheria.	Scarlet Fever.	Enteric Fever.	
Ashford U.	2.58	1.36	0.00	Ashford, East	1.09	1.30	0.00	
Beckenham U.	1.75	3.47	0.27	Ashford, West	2.50	1.84	0.27	
Bexley U.	2.35	7.50	0.00	Blean... ..	0.68	1.09	0.00	
Broadstairs U.	7.77	3.39	0.13	Bridge	2.06	2.57	0.00	
Bromley B.	2.93	2.77	0.03	Bromley	3.47	2.84	0.14	
Chatham B.	6.54	2.76	0.28	Cranbrook	0.34	1.61	0.09	
Cheriton U.	1.02	1.43	0.00	Dartford*	3.47	4.37	0.03	
Chislehurst U.	3.34	2.53	0.00	Dover	0.73	0.29	0.00	
Crayford U.	*	*	*	Eastry	0.51	1.44	0.08	
Dartford U.	8.50	8.97	0.35	Elham	1.25	1.53	0.00	
Deal B.	0.18	1.90	0.09	Faversham	0.36	0.93	0.36	
Dover B.	3.29	3.26	0.10	Hollingbourn	1.56	2.96	0.25	
Erith U.	3.00	4.16	0.10	Hoo	0.73	0.97	0.00	
Faversham B.	1.76	2.68	0.56	Maidstone	1.11	1.37	0.20	
Folkestone B.	1.37	3.67	0.16	Malling	1.25	2.58	0.05	
Footscray U.	5.59	4.11	0.00	Milton	3.35	2.83	0.00	
Gillingham B.	2.57	2.86	0.03	Romney Marsh	0.38	0.75	0.00	
Gravesend B.	2.04	0.92	0.23	Sevenoaks	1.30	0.50	0.09	
Herne Bay U.	1.18	3.99	0.24	Sheppey	0.52	0.26	0.00	
Hythe B.	1.54	0.42	0.00	Strood	1.70	2.16	0.07	
Lydd B.	0.00	0.00	0.00	Tenterden	0.00	0.54	0.00	
Maidstone B.	1.08	1.89	0.09	Thanet	1.36	1.15	0.53	
Margate B.	3.23	3.40	0.09	Tonbridge	1.27	1.54	0.22	
Milton Regis U.	1.92	4.25	0.14	VARIOUS.				
New Romney B.	0.00	0.00	0.00	1920.	Urban Districts	2.61	3.05	0.14
Northfleet U.	5.22	1.76	0.20		Rural Districts	1.73	2.07	0.11
Penge U.	2.06	3.28	0.08		Whole County	2.35	2.76	0.13
Queenborough B.	4.02	2.30	0.29	1919.	Urban Districts	1.66	1.92	0.10
Ramsgate B.	1.20	3.14	0.11		Rural Districts	1.53	1.74	0.05
Rochester City	1.62	1.80	0.09		Whole County	1.62	1.86	0.08
Sandgate U.	1.50	9.50	0.00	1920.	Aggregate of Eng- lish Administra- tive Counties	Information not yet available.		
Sandwich B.	0.00	1.22	0.00		Urban Districts (less County Boroughs) Eng- land			
Sevenoaks U.	4.04	0.61	0.11		Rural Districts, England			
Sheerness U.	0.57	2.95	0.38		England & Wales			
Sittingbourne U.	4.12	3.23	0.34					
Southborough U.	0.99	2.69	0.00					
Tenterden B.	0.28	0.28	0.28					
Tonbridge U.	1.24	2.48	0.07					
Tunbridge Wells B.	1.79	2.99	0.12					
Walmer U.	0.00	0.25	0.00					
Whitstable U.	0.55	1.85	0.11					
Wrotham U.	6.00	0.00	0.00					

* All cases of infectious disease in Crayford Urban were included in the figures for Dartford Rural for 1920.

Week Number —

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52



The BLACK lines indicate the weekly incidence in 1919, the RED lines the weekly incidence in 1920.

Difficulty arose in the working of the Act from the varying views of justices as to their powers and duties in relation to the granting of certificates of conscientious objection, and in 1907 an Act was passed to enable the conscientious objector to obtain the exemption certificate by making a statutory declaration of his objection. This certificate may be obtained by the father only, if father and mother are both living and in charge of the child, but this limitation is not universally understood, and many certificates have been obtained by married women living with their husbands. The Act of 1907 came into operation on 1st January, 1908, and its immediate effect was to more than double the number of exemptions. In 1908 there were 940,640 births, the exemptions rose to 160,350 or 17·0 per cent. and the number of primary vaccinations fell to 594,792 or 63·2 per cent. Since that time the percentage of vaccinations to births has decreased and the percentage of exemptions to births has increased. In the year 1919, the last year for which the figures are available, the births numbered 691,370 and the primary vaccinations 281,029 or 40·6 per cent., and the exemptions were 277,558 or 40·1 per cent. From statistics given for the years in question it is shown that in the last ten years, 1910 to 1919, when allowance is made for those who have died, there still remain over two-and-a-half million children under twelve years of age who are legally exempted from vaccination and are unprotected against attack and death from small-pox, and that by the operation of the existing law a further quarter of a million are added to this number year by year. This is a fact that should be known, and when it is borne in mind that in pre-vaccination days the incidence of attack and death from small-pox fell chiefly on young children, its significance can be duly appreciated and the tragedy of a widespread epidemic of small-pox realised.

At the present time a considerable proportion of the adult male population is protected, owing to having been re-vaccinated while serving in the navy and army during the war. The adult female population is protected to a lesser extent, although many women who served in the auxiliary corps were re-vaccinated.

The following is a summary of the conclusions arrived at in the above mentioned report :—

We know that the mortality from small-pox is much less now than in pre-vaccination times ; that the greatest diminution in the small-pox mortality is found in the early years of life, in which there is most vaccination ; that in countries in which there is much vaccination and re-vaccination relatively to the population, there is little small-pox ; that in places where small-pox prevails it attacks a much greater proportion of the unvaccinated than the

vaccinated, especially where the vaccinations are comparatively recent; that in houses invaded by small-pox in the course of an outbreak not nearly so many of the vaccinated inmates are attacked as of the unvaccinated in proportion to their numbers; that the fatality rate among persons attacked by small-pox is much greater, age for age, among the unvaccinated than among the vaccinated; that the degree of protection conferred by vaccination corresponds to the thoroughness with which the operation has been performed, four marks affording much better protection than one or two; that the protection afforded by vaccination wanes with lapse of time; that improved sanitation, however beneficial in itself, cannot account for these facts; and that though early diagnosis, prompt isolation of small-pox patients in suitable hospitals, effective disinfection, supervision of “contacts,” and other such public health measures, are invaluable, they are no substitute for vaccination.

SCARLET FEVER.—Number of cases notified, and rates of mortality during the past twelve years :—

Year	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	
													Kent.	England & Wales.
Cases Notified	2847	2649	2033	2330	3141	2408	3784	2862	1856	1079	1173	1825	2806	119490
Death-rate	0·05	0·04	0·03	0·02	0·03	0·03	0·04	0·04	0·03	0·01	0·02	0·02	0·02	0·04

Although the number of cases was higher than in any year since 1915, the type of disease was mild, with a very low mortality rate. It is the case which is so mild as to pass unrecognised which frequently gives rise to school outbreaks. The difficulties associated with hospital “return” cases are referred to by several medical officers of health, and the Beckenham Urban District Council pay a fee of two shillings and sixpence to the doctor who originally notifies a case, for a report on the condition of the patient after discharge from hospital. In this way any supposed infective condition developed by the patient is discovered, and further isolation is practised.

An epidemic in Folkestone was caused by the introduction of infection by holiday children from London, and the medical officer of health suggests that co-ordination between the persons responsible for the distribution of these children and the local authority should be effected.

DIPHTHERIA.—Numbers of cases notified, and rates of mortality, during the past twelve years :—

Year.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	
													Kent.	England & Wales.
Cases Notified	1212	1225	928	1392	2008	1738	2631	2136	1581	1477	1552	1589	2391	69481
Death-rate	0·12	0·14	0·07	0·11	0·16	0·10	0·17	0·16	0·14	0·13	0·18	0·16	0·16	0·15

The number of cases of diphtheria reported in 1920 was higher than in any year since 1914.

It will be seen from the figures contained in the report on the work of the County Bacteriological Laboratory (pages 73 to 79) that no fewer than 12,381 swabs were examined for the presence of diphtheria bacilli. 4,887 of these were from contacts and 4,861 from convalescents. These numbers are far in excess of those for previous years.

The medical officer of health of the rural district of Dartford advocates the more extensive swabbing of school children as a factor in the prevention of the spread of diphtheria. The great majority of the contact swabs referred to above were taken in connection with school outbreaks, and this work has been carried out to the full limits of the capacity of the present county laboratory staff.

In reply to a question as to whether anti-toxin was administered to the fullest advantage, all but eight of the district medical officers of health gave a reply in the affirmative.

ENTERIC FEVER.—Numbers of cases notified, and rates of mortality during the past twelve years :—

Year.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	
													Kent.	England & Wales.
Cases Notified	493	323	292	334	362	197	270	221	210	134	118	77	126	3109
Death Rate.	0·07	0·05	0·04	0·05	0·05	0·03	0·05	0·04	0·04	0·03	0·03	0·02	0·006	0·01

The number of cases of this disease occurring in the county, although low, was somewhat higher than in the two previous years. The rate of mortality per thousand of the population was the lowest on record.

Dr. Clements, of Beckenham, states that in one of the cases of enteric fever in his district, there was a history of the child having paddled in the Chaffinch Brook, and mentions that a similar history has been obtained in some of the cases in previous years, without much weight having been given to it. The brook in question is polluted by the effluent from the Croydon Sewage Farm, and during the greater part of the year the effluent was very bad, causing serious nuisance by its offensive odour, and at times it was little better than crude sewage. Dr. Clements states :—"In such circumstances it is possible that children paddling in the brook might infect themselves with typhoid bacilli. When one considers that shell-fish from sewage contaminated beds are liable to harbour typhoid bacilli it seems reasonable to assume that the effluent from a sewage farm, particularly such an effluent as was turned out in 1920 from the farm in question, may contain living typhoid bacilli."

MALARIA.—Cases of malaria were reported among the civil population as follows :—Ashford 1, Beckenham 6, Bexley 1, Bromley 8, Chatham 5, Dartford 3, Dover 1, Erith 5, Faversham 2, Folkestone 7, Footscray 4, Gillingham 4, Gravesend 1, Herne Bay 2, Maidstone 21, Margate 3, Milton Regis 3, New Romney 1, Northfleet 7, Penge 2, Queenborough 12, Ramsgate 34, Rochester 4, Sheerness 8, Sittingbourne 5, Tonbridge 1, Tunbridge Wells 9, and Whitstable 2, a total, among the urban districts, of 162; and in the rural districts, East Ashford 2, West Ashford 4, Bridge 2, Cranbrook 1, Dartford 5, Faversham 3, Hollingbourn 1, Hoo 11, Maidstone 3, Malling 6, Milton 2, Romney Marsh 1, Sevenoaks 5, Sheppey 1, and Tonbridge 2, a total of 49; making a total for the whole county of 211 cases, against 338 cases notified in the previous year.

Anti-mosquito measures are taken in certain areas (*e.g.*, Sheppey and district, Romney Marsh and district) where the anopheline mosquito (the "carrier" of the malaria parasite) abounds.

CEREBRO-SPINAL MENINGITIS.—Nine cases of this disease occurred in Kent during 1920, *viz.*, four in the urban districts and five in the rural districts, compared with twenty-five and five respectively in 1919.

The facilities of the county bacteriological laboratory have been offered freely to district medical officers of health, in the examination of cerebro-spinal fluid from suspected cases, and of throat swabs from contacts, and during the year eight specimens of cerebro-spinal fluid and five swabs from contacts were examined in the laboratory.

The distribution of the cases among the sanitary areas is set out in tables 5 and 6 of this report.

TUBERCULOUS DISEASES.—Number of cases of phthisis and other tuberculous diseases, and mortality, during the past thirteen years :—

Year.		1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920.	
														Kent.	England and Wales.
Phthisis	Cases Notified	—	—	—	—	2501	1936	1744	1448	1554	1408	1652	1455	1489	61,655
	Death-rate	0·84	0·78	0·78	0·87	0·88	0·81	0·86	0·96	0·99	1·03	1·16	0·98	0·80	0·89
Other Tuberculous Diseases.	Cases Notified	—	—	—	—	—	931	525	446	383	399	379	422	323	15,851
	Death-rate	0·35	0·31	0·28	0·33	0·30	0·31	0·28	0·37	0·29	0·31	0·31	0·25	0·24	0·25

The deaths from phthisis numbered 836, 615 being recorded in urban districts and 221 in rural, the mortality rates being 0·83 and 0·73 respectively.

As regards other tubercular diseases, 191 deaths occurred in urban and 59 in rural areas, the rates being 0·26 and 0·20 respectively.

It will be seen from the above tabulation that the death-rate from phthisis was lower in 1920 than in any year since 1910, whilst the rate for other tuberculous diseases was the lowest included in the statistics. The rate for the rural areas is invariably lower than for the urban.

Table 8 shows the numbers of notifications of cases of tuberculosis which have been received in the Administrative County of Kent for the period from January 4th, 1920, to January 1st, 1921, classified according to age, sex, pulmonary or non-pulmonary type.

For the purposes of comparison between the notification of, and deaths from, phthisis and other tuberculosis diseases, I have included Table 9, shewing these details for each sanitary district in the Administrative County of Kent, together with the average number of deaths from these causes for the five years, 1916-1920.

The average annual number of deaths from phthisis or pulmonary tuberculosis in all the forty-one urban districts of Kent, for the five years ended December 31st, 1920, was 728, and the total number of notifications of this disease received from these urban districts during 1920 was 1,054. The figures for the twenty-three rural districts were 293 and 334 respectively.

Generally speaking, the notification of pulmonary tuberculosis is by no means complete, and in thirty sanitary districts in Kent there are stated to be deficiencies in this connection. Notification is also frequently delayed until a late stage of the disease.

TABLE 8.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period from the 4th January, 1920, to the 1st January, 1921,
in the County of Kent.

AGE PERIODS.	Notifications on Form A (by general medical practitioners).												Notifications on Form B (by school medical inspectors).			Number of Notifications on Form C.				
	Number of Primary Notifications.												Number of Primary Notifications.			Total Notifica- tions on Form B.	Poor Law Institu- tions.	Sana- toria.		
	Total Notifica- tions on Form A.												Total Prim- ary Notifi- cations.							
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and up- wards.	Total Prim- ary Notifi- cations.	Un- der 5	5 to 10	10 to 15	Total Prim- ary Notifi- cations.				
Pulmonary Males...	2	4	33	32	69	113	228	155	79	40	14	769	796	—	5	4	9	9	7	178
Females ...	1	6	33	36	71	86	180	113	46	18	14	604	619	—	4	2	6	6	7	81
Non-pulmonary Males ...	2	17	36	26	13	13	13	7	4	2	1	134	138	—	1	2	3	3	3	7
Females	4	17	26	24	23	10	23	10	5	4	3	149	154	—	1	1	2	2	2	13

TABLE 9.—Number of cases of Tuberculosis notified in each district in Kent under the Public Health (Tuberculosis) Regulations, 1912, during 1920; together with the number of deaths occurring from Tuberculosis and the average figures for five years (1916-1920).

URBAN DISTRICTS.	Estimated Total Popula- tion, 1920.	Notifications, 1920.			Deaths.						RURAL DISTRICTS.	Estimated Total Popula- tion, 1920.	Notifications, 1920.			Deaths.					
		Pulm.	Other.	Total.	Pulmonary.			Other.					Pulm.	Other.	Total.	Pulmonary.			Other.		
					Average of five years, 1916-20.	1920.	Rate per 1,000, 1920.	Average of five years, 1916-20.	1920.	Rate per 1,000, 1920.						Average of five years, 1916-20.	1920.	Rate per 1,000, 1920.			
Ashford	14,778	12	1	13	13	14	0.95	4	3	0.21	Ashford, East	13,884	17	3	20	10	13	0.94	4	3	0.22
Beckenham	33,812	41	11	52	24	15	0.45	10	6	0.18	Ashford, West	7,618	10	—	10	7	5	0.66	1	2	0.27
Bexley	21,742	16	3	19	18	15	0.69	4	3	0.14	Blean	7,361	12	6	18	10	5	0.68	2	1	0.14
Broadstairs and St. Peter's	7,982	33	5	38	9	5	0.63	3	3	0.38	Bridge	9,752	14	4	18	8	4	0.42	2	1	0.11
Bromley (Borough)	36,181	35	15	50	27	17	0.47	7	8	0.23	Bromley	22,253	21	1	22	22	25	1.13	7	4	0.18
Chatham (Borough)	43,578	58	10	68	54	57	1.31	11	11	0.26	Cranbrook	11,847	8	4	12	10	5	0.43	3	3	0.26
Cheriton	7,840	4	3	7	3	3	0.39	2	0	0.00	Dartford	32,170	50	7	57	42	27	0.66	10	6	0.15
Chislehurst... ..	8,706	8	2	10	4	3	0.35	2	1	0.12	Dover	7,373	7	—	7	6	4	0.55	3	2	0.28
*Crayford... ..	12,000	—	—	—	—	4	1.33	—	3	1.00	Eastry	13,946	16	2	18	11	12	0.87	2	0	0.00
Dartford	23,414	21	—	21	24	20	0.86	4	3	0.13	Elham	7,228	9	1	10	8	7	0.97	2	1	0.14
Deal (Borough) ...	11,869	10	1	11	11	11	0.93	3	5	0.43	Faversham	14,089	24	7	31	12	10	0.71	3	2	0.15
Dover (Borough) ...	44,207	86	8	94	38	50	1.14	14	13	0.30	Hollingbourn	12,196	11	1	12	11	7	0.58	3	3	0.25
Erith	31,741	54	10	64	32	26	0.82	9	8	0.26	Hoo	4,133	—	—	—	3	—	0.00	1	1	0.25
Faversham (Borough)	10,845	32	6	38	13	10	0.93	3	3	0.28	Maidstone... ..	15,369	6	2	8	17	9	0.59	5	6	0.40
Folkestone (Borough)	33,219	83	34	117	31	28	0.85	12	14	0.43	Malling	23,299	29	3	32	24	19	0.82	8	4	0.18
Footscray	8,780	7	1	8	6	3	0.35	2	1	0.12	Milton	13,444	14	—	14	15	15	1.12	2	1	0.08
Gillingham (Borough)	52,105	34	9	43	54	42	0.81	13	12	0.24	Romney Marsh	2,684	4	1	5	2	2	0.75	1	1	0.38
Gravesend (Borough)	31,486	14	1	15	38	26	0.83	10	11	0.35	Sevenoaks... ..	24,025	18	3	21	21	12	0.50	6	4	0.17
Herne Bay	8,535	27	6	33	8	8	0.94	2	2	0.24	Sheppey	3,921	4	1	5	1	1	0.26	1	0	0.00
Hythe (Borough) ...	7,264	15	3	18	6	4	0.56	1	0	0.00	Strood	15,645	9	2	11	14	15	0.96	6	8	0.52
Lydd (Borough) ...	3,060	2	—	2	2	3	0.99	0	0	0.00	Tenterden... ..	5,586	6	1	7	6	4	0.72	0	1	0.18
Maidstone (Borough)	34,905	42	10	52	48	29	0.84	10	10	0.29	Thanet	9,589	32	3	35	12	11	1.15	3	2	0.21
Margate (Borough)	23,243	97	21	118	28	26	1.12	9	7	0.31	Tonbridge... ..	18,207	13	5	18	19	9	0.50	4	3	0.17
Milton Regis	7,296	7	—	7	7	5	0.69	1	0	0.00	Total in Rural Districts...	295,619	334	57	391	293	221	0.73	80	59	0.20
New Romney (Borough)	1,446	3	—	3	1	1	0.70	—	0	0.00	„ Urban „	750,457	1,054	231	1,285	728	615	0.83	204	191	0.26
Northfleet	15,355	14	5	19	21	15	0.98	5	4	0.27	Total for County	1,046,076	1,388	288	1,676	1,021	836	0.80	284	250	0.24
Penge	25,308	19	7	26	24	28	1.11	8	8	0.32											
Queenborough (Borough)...	3,485	3	—	3	2	4	1.15	—	0	0.00											
Ramsgate (Borough)	29,338	113	26	139	36	27	0.93	8	9	0.31											
Rochester (City) ...	33,849	21	5	26	31	22	0.65	9	8	0.24											
Sandgate	2,914	5	1	6	1	1	0.35	—	1	0.35											
Sandwich (Borough)	3,279	1	—	1	3	3	0.92	1	0	0.00											
Sevenoaks	9,917	3	1	4	8	5	0.51	2	1	0.11											
Sheerness	17,071	24	2	26	17	12	0.71	4	6	0.36											
Sittingbourne	8,996	13	2	15	9	5	0.56	3	3	0.34											
Southborough	7,079	4	—	4	7	5	0.71	2	1	0.15											
Tenterden (Borough)	3,645	2	1	3	3	3	0.83	2	3	0.83											
Tonbridge	15,341	16	2	18	18	17	1.11	5	6	0.39											
Tunbridge Wells (Borough)	35,795	43	12	55	30	23	0.65	12	12	0.34											
Walmer	5,734	1	1	2	4	2	0.35	1	1	0.18											
Whitstable	9,202	27	4	31	10	11	1.20	2	0	0.00											
Wrotham	4,115	4	2	6	4	7	1.71	—	1	0.25											
Total	750,457	1,054	231	1,285	728	615	0.83	204	191	0.26	Total for County	1,046,076	1,388	288	1,676	1,021	836	0.80	284	250	0.24

*Crayford was an Urban District for the last three months of 1920, and the figures as shown have reference to that period only. For the first part of the year Crayford was part of Dartford Rural District.

I am glad, however, to note an improvement for the year in the standard of notification. The following figures show the gradual increase in the past in the numbers of urban and rural districts where the number of notifications did not exceed twice the number of deaths :—

Year.	No. of Urban Districts.	No. of Rural Districts.
1913	20	12
1914	25	15
1915	26	19
1916	27	17
1917	34	19
1918	33	19
1919	35	21
1920	24	15

TUBERCULOSIS DISPENSARY ORGANISATION.

District No. 1.

(Tuberculosis Officer in Charge, DR. W. B. MARTIN.)

Bromley	2, Park Road	Wednesday, 1.30-3.30 p.m.	<i>Area for Additional Domiciliary Visitation.</i> Dartford R., Bromley R., Chislehurst, Footscray, Bexley and Penge.
Erith	19, Pier Road	Monday, 5.30-6.30 p.m.	
		Thursday, 2.0-4.0 p.m.	
DARTFORD ...	41, Overy Street	Monday, 2.0-4.0 p.m.	
	(Tel. No. 378)	Thursday, 5.20-6.30 p.m.	

District No. 2.

(Tuberculosis Officer in Charge, DR. P. J. GAFFIKIN.)

ROCHESTER ...	13, New Road ..	Friday, 9.0-10.0 a.m.	Northfleet, Strood R., Hoo R., Chatham, N.E. fringe of Malling R., N.W. fringe of Holling- bourn R. and E. quarter of Milton R.
	(Tel. No. Chatham, 82)	Tuesday, 2.0-3.0 a.m. and 5.0-6.0 p.m.	
Gillingham ...	228, Nelson Road ...	Tuesday, 9.0-10.0 a.m.	
		Friday, 2.0-3.0 p.m. and 5.0-6.0 p.m.	
Gravesend ...	22, Cobham Street ...	Saturday, 10.30 a.m.-12.0 noon	

District No. 3.

(Tuberculosis Officer in Charge, DR. H. L. GRABHAM.)

Sevenoaks.....	4, Cramptons Road...	Tuesday, 1.30-4.0 p.m.	Sevenoaks R., Tonbridge R., Southborough U., Cranbrook R., and S. half of Malling R.
TONBRIDGE ...	53, Pembury Road ...	Monday, 2.0-3.30 p.m.	
	(Tel. No. 228)	Thursday, 5.15-6.0 p.m.	
Tunbridge Wells.....	34, Calverley Street	Monday, 5.15-6.0 p.m.	
		Thursday, 2.0-3.30 p.m.	

District No. 4.

(Tuberculosis Officer in Charge, DR. W. C. D. HILLS.)

MAIDSTONE ...	“ Pitfield,” Marsham	Tuesday, 1.0-3.30 p.m.	Wrotham, Malling R.
	Street	Friday, 1.0-3.30 p.m.	(except N.E. and S.
Sittingbourne.	36, Albany Road.....	Monday, 1.30-4.0 p.m.	fringes), Maidstone R.,
Sheerness	20, Marine Parade ...	Thursday, 10.30 a.m.-2.30 p.m.	Milton R. (except E.
			quarter), Hollingbourn
			R. (except N.W. fringe),
			Milton Regis, Queen-
			borough, Sheppey.

District No. 5.

(Tuberculosis Officer in Charge, DR. T. M. PEARCE.)

			<i>Area for Additional</i>
			<i>Domiciliary Visitation.</i>
Dover	9, Eastbrook Place ..	Thursday, 10.0 a.m.-12.0 noon	Bridge R., Eastry R.,
		and 1.30-4.0 p.m.	Elham R., Dover R.,
		(Also 1st Thursday in each	Sandwich, Walmer,
		month, 4.30-6.0 p.m.)	Cheriton, Sandgate and
FOLKESTONE..	80, Dover Road	Monday, 10.0 a.m.-12.0 noon	Hythe, less area im-
(Tel. No. 40)		and 2.30-6.0 p.m.	mediately south of,
Deal	16, Clanwilliam Road	Tuesday, 11.0 a.m.-1.0 p.m.	and adjaeent to, the
Canterbury ...	11, Longport Street	Friday, 2.30-3.30 p.m.	railway line between
			Ramsgate and Canter-
			bury.

District No. 6.

(Tuberculosis Officer in Charge, DR. C. C. A. DE VILLIERS.)

Faversham ...	2, Albion Terrace ...	Tuesday, 1.0 p.m.	Faversham R., Blean R.,
Herne Bay ...	16, High Street ...	1st and 3rd Thursday each	Whitstable, Thanet R.,
		month at 12.0 noon	and Broadstairs U.,
RAMSGATE ...	Charlotte Cottage,	Wednesday, 11.0 a.m.-2.30	and area immediately
	Market Place	p.m	south of, and adjaeent
Margate	Eton House, St.	Friday, 2.0 p.m.	to, the railway line be-
	Peter's Road		tween Ramsgate and
			Canterbury.

District No. 7.

(Tuberculosis Officer in Charge, DR. J. M. CLEMENTS.)

Beckenham	Fire Station, Bromley	Tuesday, 2.0-5.0 p.m.
Tele. No.	Road	Wednesday, 9.30 a.m.-1.30
(Bromley, 810)		p.m.

District No. 8.

(Tuberculosis Officer in Charge, DR. A. E. RAYNER.)

Ashford.....	1, Barrow Hill Place	Friday, 10.0 a.m.-12.0 noon	Ashford E., Ashford U.,
			Romney Marsh, Ten-
			terden U. and R., New
			Romney U. and Lydd
			B.

TABLE 10.—Showing particulars of New Patients, Contacts, Diagnosis, Attendances and Deaths for 1920, and Patients attending Dispensary at end of year, in respect of each Dispensary and each Tuberculosis Officer's area.

Name of Dispensary.	Times Open.	*New Patients.						Contacts Examined.						Diagnosis.						Attendances, Old and New Patients.			Deaths during 1919.		Patients attending or under observation on December 31st, 1920.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
		Insured.		Uninsured.		Total.		Tuberculous.		Non-Tuberculous.		Under Observation.		Pulmonary Tuberculosis.	Surgical Tuberculosis.	Bronchitis Bronchiectasis.	Other Diseases.	No Disease or Still under Observation.	Insured.	Uninsured.	Total.	Insured.			Uninsured.		Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.									M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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*These patients received treatment at the dispensaries, and the nature of the disease from which they were suffering is shewn in the diagnosis columns.

This branch of the work was continued satisfactorily during the year.

The calling station at Whitstable was discontinued at the end of March, and the patients attend at the Herne Bay dispensary.

The removal of the dispensary at Gravesend was necessitated owing to the expiration of the lease. No. 22, Cobham Street, was purchased by the County Council, and the dispensary was removed to these premises on October 1st, 1920.

The Sittingbourne dispensary was removed from the Public Health Offices to 36, Albany Road, on March 25th, and the Sheerness dispensary from 61, Alma Road, to 20, Marine Parade, on November 18th.

The new dispensary was opened at Eton House, Margate, on September 17th, 1920, and has quickly justified its existence, as will be seen from Table 10.

Premises have been purchased by the County Council at No. 16, Clanwilliam Road, Deal, and the transfer of the dispensary from Sandwich took place on April 26th, 1921. The lease of No. 11, St. Peter Street, Sandwich, terminated on April 30th, 1921.

Dr. Rayner, the assistant medical superintendent at Lenham Sanatorium, took charge of Ashford dispensary as from June 1st, 1920. This relieved Dr. Pearce, who, in turn, took charge of Canterbury dispensary, thus enabling Dr. de Villiers to take over the new dispensary at Margate.

Dr. G. D. H. Wallace resigned his appointment on September 3rd, 1920, and was succeeded by Dr. P. J. Gaffikin, who commenced duty on September 20th, 1920.

Each tuberculosis officer is assisted by a clerk. All the whole-time nurses on my staff carry out the visitation of tuberculous patients and attend at the dispensaries in their areas. This arrangement came into effect on April 1st, 1920, prior to which date separate nurses were employed for this work. The aggregate number of days devoted to the work is equivalent to the time of 6·31 whole-time nurses. In addition, three part-time nurses attend at the Sevenoaks, Beckenham and Bromley dispensaries, and carry out home visiting in these towns.

Table 10 shows the work carried out at the dispensaries during 1920, and Tables 11 and 12 the occupation and age classification of patients:—

TABLE 11.—Showing Occupations of Sanatorium Benefit Patients and New Uninsured Patients who received treatment during 1920 :—

MALES.

OCCUPATIONS.	Sanatorium Benefit Patients.	Uninsured Patients.	Total.
AGENTS, including Travellers, Collectors, etc. ...	9	4	13
ATTENDANTS of all kinds	3	5	8
BUILDING TRADES, including, Painters, Decorators, Carpenters, Joiners, Plumbers, etc.	10	23	33
CARMEN, including Chauffeurs, Motormen, Carriage Drivers, Engine Drivers, etc.	20	17	37
CLERKS, including Secretaries, Valuers, Reporters, etc.	25	32	57
DOMESTIC SERVANTS, including Butlers, Coachmen, Gardeners, Stewards, Carctakers, Footmen, Waiters, etc.	12	9	21
ENGINEERS, including Instrument Makers, Toolmakers, etc.	24	14	38
FACTORY AND MILL WORKERS, including Papermakers, Leathermakers, etc.	12	9	21
LABOURERS of all kinds, both skilled and unskilled	73	60	133
MECHANICS, including Boilermakers, Engine-makers, Brass Finishers, Ironfounders, etc.	19	17	36
MINERS	—	2	2
MUSICIANS, including Pianoforte Tuners, etc. ..	—	—	—
POSTMEN, POLICEMEN, FIREMEN, etc.	—	7	7
PRINTERS, including Compositors, etc.	2	5	7
RAILWAY WORKERS, including Carriage Cleaners, Repairers, Platclayers, Porters, Guards, etc. ...	10	14	24
SCHOOL CHILDREN AND CHILDREN UNDER SCHOOL AGE	—	659	659
SHIPWRIGHTS, including Ship Fitters, Ship Riggers, Cableworkers, etc.	4	3	7
SHOPKEEPERS AND SHOP ASSISTANTS	12	14	26
SOLDIERS AND SAILORS, including ex-Soldiers and ex-Sailors	513	110	623
STOKERS	—	—	—
TAILORS and Allied Tradesmen ..	2	2	4
TEACHERS	—	2	2
TRADESMEN, including Butchers, Bakers, Dairy-men, Grocers, etc.	9	20	29
WATERMEN, including Bargemen, Lightermen, Seamen, etc.	3	7	10
UNKNOWN, VARIOUS or of NO OCCUPATION	13	49	62
Total Males	775	1084	1859

TABLE 11.—Continued FEMALES.

OCCUPATIONS.	Sanatorium Benefit Patients.	Uninsured Patients.	Total.
CLERKS	16	9	25
DOMESTICS, including Housewives, Cooks, Nurses, etc.	101	502	603
FACTORY WORKERS	26	12	38
LAUNDRESSES	6	5	11
MUNITION WORKERS	2	1	3
PRINTING TRADES	—	1	1
SCHOOL CHILDREN AND CHILDREN UNDER SCHOOL AGE	—	632	632
SCHOOL TEACHERS	2	11	13
SHOP ASSISTANTS	19	21	40
TAILORESSES, including Dressmakers	4	3	7
UNKNOWN, or of NO OCCUPATION.....	—	37	37
VARIOUS.....	26	9	35
Total Females	202	1243	1445

TABLE 12.—Showing the Age Classification of Sanatorium Benefit and New Uninsured Patients who received Treatment during 1920 :—

AGE.	Sanatorium Benefit Patients.	Uninsured Patients.	Total.
1—5	—	226	226
5—15	—	1074	1074
15—25	328	286	614
25—35	337	343	680
35—45	214	273	487
45—55	79	92	171
55—65	17	23	40
65—75	2	10	12
Totals	977	2327	3304

The county tuberculosis officers confer with the local medical officers of health, from time to time as required, to ensure that the fullest possible co-operation between the dispensary and the local sanitary authority is maintained. Medical officers of health refer patients to the tuberculosis officers, and copies of all positive sputum examinations are sent from the County Bacteriological Laboratory to both these officials.

It has not been found possible to arrange, as a routine measure, for home visiting by the tuberculosis organisation of all patients notified to the local medical officer of health as suffering from tuberculosis. For one thing, the time of both the tuberculosis officers and nurses is so fully occupied, and again some medical officers of health do not desire this form of co-operation, as they prefer the services of their own health visitors in this connection. When possible in these latter cases the local health visitor reports as required to the tuberculosis officer.

Complaints as to insanitary conditions and overcrowding found in the homes of patients by the tuberculosis officers or nurses are referred to the local medical officers of health for remedy, and the co-operation of the medical officers of health and sanitary inspectors in this connection has been of great assistance.

Close interchange of opinion on the results of medical examination of patients sent from or to school clinics, infant welfare centres, hospitals, &c., is maintained.

The medical practitioners in the county are kept informed of any change in the tuberculosis organization. They are always welcomed at the dispensaries, and frequently bring patients with them for examination. Consultations are arranged at the patients' homes as required. The periodical reports on insured patients under domiciliary treatment are usually submitted by the panel practitioners in satisfactory detail and without delay, and the reports have, in most cases, exhibited a considerable interest in the patients. There are, however, always a few defaulters whose reports have been late or unobtainable.

The activities of the tuberculosis dispensary organisation in following up doubtful cases and securing the examination and systematic supervision of home contacts have been continued, and this has led to the discovery of many early cases. Patients are kept under close observation by the tuberculosis officer until the diagnosis is confirmed, and the tuberculosis nurse maintains a constant watch upon the homes. The nurses make every endeavour to secure the attendance of contacts at the dispensary for examination by the tuberculosis officer, and table 10 shows the number of contacts examined during the year. The tuberculosis officer, when visiting patients at home, is frequently able to examine other members of the family on the spot. Particular attention is paid to the children in a family where one parent is, or has been, a case of advanced pulmonary tuberculosis.

Special methods of diagnosis and treatment have been adopted by the different tuberculosis officers.

The Von Pirquet test has been used in children under seven years of age in about fifty cases. One tuberculosis officer has discontinued the test, as he states the results are uncertain and vague. Another fears the probability of infection of the "wound" in the dirty houses in his area.

Arneth's blood count has been used in diagnosis and as a control of treatment—one hundred cases of the former and twenty of the latter.

Tuberculin is used in some cases, but several tuberculosis officers are doubtful of its value in dispensary practice, owing to the fact that it is not possible to keep the patients under constant observation. As regards surgical cases, one officer states that "weekly injections of tuberculin in gradually increasing doses have been found most useful in cases of glandular disease, less obviously beneficial in cases of skin tuberculosis, and with some remarkably good results in eye cases." (See also extracts on pages 50 and 51.)

Arrangements have been made with several hospitals in Kent for the x-ray diagnosis and treatment of patients, and it is hoped to extend these arrangements to more centres in the county.

During the year 1920 the County Bacteriological Laboratory at Maidstone has continued to give bacteriological aid in diagnosis in connection with cases of tuberculosis. The number of specimens of sputum examined during the year was 2,714, in 627 (*i.e.* over twenty-three per cent.) of which the tubercle bacillus was found.

The following table shows the results of bacteriological work each year since the commencement of the tuberculosis scheme :—

Year.	Specimens of sputum examined.	Percentage positive.	Year.	Specimens of sputum examined.	Percentage positive.
1912	362	37%	1916	2100	26%
1913	882	30%	1917	1948	25%
1914	1539	33%	1918	1831	25%
1915	1831	29%	1919	2075	23%
			1920	2714	23%

It will be noticed in the above table that though the number of specimens examined on the whole tends to increase gradually, the percentage found positive is lower. This result is due to greater efforts to determine the diagnosis in early and doubtful cases, in a large proportion of which the result would naturally be negative.

A future branch of bacteriological work which will aid in the treatment of phthisis has been opened up through the decision that in future, in certain cases, vaccines (autogenous and otherwise) will be prepared in the County Laboratory.

As regards bacteriological work at Lenham Sanatorium it has been found more practical for the County Laboratory to supply the medical superintendent with a microscope and the necessary staining materials, &c., so that he may make what simple examinations he requires at once. Work needing elaborate apparatus is undertaken at the County Laboratory.

Dental treatment and ancillary nourishment have been provided only for insured patients in the past, and the numbers of cases in which this assistance was granted, are referred to on pages 62-63. During 1921 the facilities have been extended to the uninsured population. No provision is made for the home nursing of tuberculous patients, except by the War Pensions Committees for ex-service men.

The hospital accommodation available for the treatment of non-pulmonary tuberculosis is hardly sufficient to meet present needs, but it is hoped to make arrangements for more beds at an early date. Beds have been secured at four general hospitals in the county, but the majority of the patients are sent to the Royal Sea Bathing Hospital, at Margate.

Surgical apparatus such as spinal jackets, crutches, Thomas's hip splints, &c., are provided on the recommendation of the tuberculosis officers, and the following were supplied during 1920 :—

For *insured* patients by the Kent Insurance Committee :—Splints, 3 ; spinal jackets, Thomas's hip splints, bed pans, bed rests and air cushions, 2 each ; rubber urinal, surgical boot, truss, pair of arch supports, poroplastic splint, back, leg and thigh splint, and crutches and patten, 1 each. Alterations to spinal jackets were made in two instances, and renewal of metal patten in one.

For *uninsured* patients by the Kent County Council :—Spinal jackets 4, crutches 4, surgical boots, splints and crutches 2 each ; Thomas's hip splint, poroplastic jacket and spinal carriage, 1 each ; alterations and repairs to surgical boots 1.

With regard to "care" and "aftercare," a special panel of home visitors who will take a personal interest in the patients at the invitation of the tuberculosis officer, has been formed recently and this organisation covers the whole of the county. The scope of these visitors will include finding employment for patients.

The County Council have eighty-seven open-air shelters which are loaned to patients in the early stages of the disease, who are willing and able to sleep out of doors. In many instances these are the only means of enabling a patient to sleep apart from other members of the family. The

tuberculosis officers and nurses, on the occasion of their periodical visits to patients, ensure that they are being properly used. They are always disinfected before removal from one patient to another.

The industrial conditions in Kent do not seem to be specially predisposing to tuberculosis. One of the tuberculosis officers states that he has been struck by the number of cases which have come to his notice from among the staffs of the various army clerical departments. Another refers to the considerable incidence in the naval personnel under war-time conditions.

Dr. Gaffikin has an excellent project which he is putting into operation, and that is the organisation of a troop of boy scouts among the juvenile patients and contacts. This will no doubt prove a valuable method of hygienic education of the next generation.

DISPENSARY WORK.

The following are extracts from the annual reports of the district tuberculosis officers for the year 1920 :—

DR. MARTIN:—"The decrease in the number of male patients coming under treatment at the dispensaries was amongst the insured who had not served in the Forces ; the number of ex-service men remained at virtually the same figure. As compared with previous years, it was noted that this class of man came under treatment in, generally speaking, a definitely earlier stage of disease. Of the ex-soldiers and ex-sailors attending the dispensaries at the end of the year the disease was arrested in forty-five per cent. ; still active, but of an ultimately hopeful prognosis in thirty-two per cent. ; while the remaining twenty-three per cent. was composed of advanced cases in whom the chances of recovery were very poor.

"The position with regard to training colonies appears to be unfortunate. It is an indispensable condition of admission to these institutions that the disease must be arrested, but it has not always been found possible to keep men long enough in sanatorium to ensure this condition, though there can be no doubt as to the very material degree of improvement attained by such treatment. It often occurs that after a few months subsequent dispensary treatment arrest can be definitely stated to have taken place, but by that time many men have been able to secure a footing in a suitable occupation, and are naturally not desirous of giving it up for training, after the completion of which immediate return to a remunerative occupation cannot be, at the best, other than very uncertain. This is another argument for the necessity of considerably augmented sanatorium accommodation.

"Owing to the nature of the disease, which demands indefinitely prolonged supervision in all cases of arrest, there is a tendency for continual increase of

attendances which can only be kept within reasonable limits by constant reconsideration of these cases with a view to prolonging the interval of attendance. In addition there is always a considerable number of patients under observation for varying lengths of time. As it is, the attendances of these two classes of cases cut down, to an irreducible minimum, the time which should be devoted to definitely active cases, and to those coming up for examination for the first time. For several years prior to the past one I have continually used tuberculin, but on taking up this appointment, owing partly to the relatively scattered nature of the work, and partly from a desire to obtain the "other point of view," I gave it up as a means of treatment. After making due allowance for the class of patient, local conditions, &c., I must admit that I am unable to conclude that I have, broadly speaking, noticed any difference in the rate of progress whether I have or have not been using it. It is, in fact, owing to the nature of the complaint, impossible to prove that it is definitely of any relative degree of value. I am of opinion that it is of some assistance in certain types of early disease, but in order to make its use worth while in working-class practice, I consider that cases must be kept under constant observation, preferably in an institution.

"Apart from the consideration of surgical cases for whom satisfactory institutional accommodation can be found when necessary, one has often felt that it would be a boon to have one or two beds at one's disposal chiefly for observation purposes, relief of pleural effusions, and the production of artificial pneumo-thorax. These would be mainly for the use of the needy uninsured."

DR. GAFFIKIN :—"The feature of the past year has been the amount of public attention and criticism that has been directed towards the problem of tuberculosis.

"Tuberculin, as a remedy for both the pulmonary and non-pulmonary forms, is being used in a large number of cases, and the results seem to be most promising and to presage a revival of this form of treatment.

"It has sometimes been said by tuberculosis officers that the opportunities for research work in the dispensaries are limited, following the general belief that research work is the peculiar province of the laboratory worker, but surely it is from the man who is in constant touch with large numbers of clinical cases, rather than from the necessarily isolated laboratory staff, that advances are to be expected. I have been attempting, by the use of weight charts and repeated blood and sputum examinations, to obtain definite evidence for or against the use of tuberculin, and it has been suggested that an extended investigation, carried out by a number of workers, such as are found on the staff of the County Council, would soon give a definite pronouncement on such a point.

“Ample evidence would appear to be forthcoming of the connection between tuberculosis and the milk supply. In this connection it is interesting to note that, on coming to Kent from South Wales, I observed a much smaller proportion of cases of glandular tuberculosis here than in Glamorgan. At first I was inclined to attribute this to the greater purity of the milk supply in this area. Then I noted that in this district I found a greater incidence of rickets than in South Wales, and my theory, for what it is worth, is that in the mining districts where wages are high, the children had more milk with a concomitant increase of glandular tuberculosis, while in this area, wages are lower, the children have less milk, and in consequence showed an increased tendency to rickets. This is only a theory, but if correct, it is a sad reflection on our civilisation that the best we can offer the next generation is a choice between milk and tubercle or no milk and rickets.”

DR. GRABHAM:—“Every year it seems to me to be more and more necessary, if the prevention of the disease is to be seriously undertaken, to have a hospital or home, for advanced cases—not one from which the patients are discharged at the end of three months, but where they can be kept permanently. An advanced case living in a small and overcrowded house, too often sows the seeds of disease, which the other occupants, especially the rising generation, will one day bring to harvest.

“In surgical cases, test doses of tuberculin by the subcutaneous method are in some cases tried, and many cases are given a course of tuberculin treatment by Wright’s method.

“Tuberculin is not used in pulmonary cases, either for diagnosis or treatment, as I consider a patient, not under continuous skilled observation may have, during forty-eight hours after each injection, unnoticed reactions. If this happens an increase of dose may lead to dangerous focal reactions and spread of the disease.

“In advanced cases, little permanent benefit is acquired by either dispensary or sanatorium treatment, though the education of the patient helps to prevent the spread of the disease. In early cases, sanatorium treatment is of great benefit, but patients do not usually stay there long enough to complete the arrest of the disease. The dispensary treatment, by preparations of cod liver oil, etc., of children of school age appears to be of marked benefit and the majority of other patients also, often materially improve whilst under treatment.

“The extension of the time spent by patients in sanatorium and the provision of farm colonies, &c., would tend to prevent cases becoming advanced and so being a danger to others. The provision of accommodation for advanced cases and the solving of the housing problem and a pure milk supply would all help to prevent the spread of the disease.”

DR. HILLS :—“As in the previous year a large amount of work has been carried out in the watching and examination of school children, with the special object of the detection of tubercular and pre-tubercular conditions, and it appears from general experience, that satisfactory results in the preventive treatment of tuberculosis will be obtained by perseverance in this direction.

“The results of treatment at sanatoria have in a number of cases been most satisfactory and the patients have been able to start light work and to gradually increase its intensity. The allowance of ancillary nourishment to cases recently discharged from sanatoria and starting work, has been of the greatest help and assistance, as without it patients almost invariably, at this critical time, lose ground. The anxiety of patients to start work has been a continual source of satisfaction and this self-help on the patient's part goes a long way as a nervous stimulant to assist a general recovery. As to the question of permanent recovery, with the majority of cases it is not safe to assume this certainly for a period of several years, but to regard them as cases of arrest of disease, to be kept under observation, with gradually increasing periods from one, two and three months up to three years.”

“The more one sees of children suffering from chest affections and obviously in either tubercular or pre-tubercular condition, the more strongly one feels the necessity and assistance that X-ray apparatus would be in the satisfactory treatment in such conditions, both as regards diagnosis and treatment, and it is earnestly to be hoped that with the advance of X-ray knowledge, less intricate and less expensive apparatus will enable this branch of treatment to be brought into use at dispensaries. Malt and cod liver oil, as given at the dispensaries to children on the borderland, is, I am strongly convinced, assisting in the prevention of tuberculosis in a number of children.”

DR. PEARCE :—“Several ex-service men have been sent to an institutional training colony during the year, but it is not easy to find men suitable for the life and the idea is not very popular. An ex-service man who has been away from his home for some years, spent some months in various hospitals and then been in a sanatorium prefers to return to the freedom of home life rather than enter upon a course of training. He is possibly misguided from his own point of view and it would also be better for the State if he entered a colony, maintained his health and learnt a trade, but one cannot be surprised at this point of view.

“It is not yet possible to express an opinion as to the usefulness of this combined treatment and training.

“Domiciliary treatment is unsatisfactory and will from the nature of things remain so. It is not calculated to be of any use in the prevention of

tuberculosis, quite the reverse. Wherever there is an isolation hospital or union infirmary there also should be beds for patients who under present circumstances are receiving domiciliary treatment, using the words in their widest sense to include both insured and uninsured advanced cases.

“A difficulty is to get people to attend at the dispensaries regularly for observation, without treating them. No tuberculosis officer can lightly lose sight of an individual whose health is obviously not good without a serious effort to discover whether the tubercle bacillus is the cause of the symptoms, and so subtle are the ways of this bacillus and so ubiquitous its presence that it may be many months before it is possible to send away a patient still ailing, and yet feel satisfied that tuberculosis is not at the root of the trouble. During the period the patient has to have treatment, or is lost sight of—a bait is necessary.”

DR. DE VILLIERS :—“Nothing special has been noticed as to the general incidence of tuberculosis as regards occupation since there has not been any great affinity shown in any special direction. Perhaps because there are not many large factories or special trades in this area.

“Patients are regularly lectured as to the importance of personal and home hygiene, of treating the individual as well as the disease, and of isolation ; but the housing difficulty is as acute as ever.

“Medical practitioners are continuing to show an active interest in the work of the dispensaries, and have sent up a large number of patients, and also many contacts.

“The courteous assistance and co-operation of medical officers of health and sanitary inspectors has been of great help. A personal consultation as regards notifications, housing, disinfection, &c., is worth a volume of correspondence, and the comparison of notes on individual cases is most useful. A great difficulty is housing and the changing of address without notification of the same. Visitors should not be allowed to occupy infected rooms.”

DR. CLEMENTS :—“Many early cases return from the sanatorium with arrested or retarded disease. They take up their usual work and their normal life again. The supervision from the dispensary can only be very imperfect, and the preparation they have had to fit them for full work is inadequate or of a useless character, and as a result they relapse in a short time.

“Care, supervision and advice are urgently needed at this time if relapses are to be avoided, and if the money already spent on sanatorium treatment is not to be lost. Experience shows that a short period of sanatorium treatment which is not followed by special after-care is of little value.

Something more must be done than merely delaying the course of the disease by a few months, and much can be done in this direction by bringing the patient back in a more gradual way to his responsibilities as bread-winner and to full working capacity.

“The first requirement would appear to be an organised scheme of after-care—a body of persons who would follow up and supervise the patients after their discharge from the sanatorium, and deal with the problems and difficulties that arise at this time. These difficulties mainly centre around the question of employment, and they are not by any means of a simple nature or easily solved. (A panel of home visitors has been formed in connection with the after-care of tuberculous patients—see page 48.)

“The patient must work to earn a living, and the problem is to find him suitable work that will bring in a living wage. Many are not able to do a full day's work and should only work half or quarter time.

“If the patient could be detained in the sanatorium until he was fit to do a full day's work, without injury to himself, the problem would be easier, but this would entail such a prolonged stay in the sanatorium as to make the cost prohibitive.

“A good deal of attention has been given of late to the segregation of these patients in colonies or villages, where suitable workshops and trades are established, and where the patients are given work for which they are paid, while at the same time they are completing their cure. A course of training and treatment in such a colony would appear to be an excellent supplement to a course of sanatorium treatment and a good preparation for the patient taking up his usual employment. Our aim should be to enable the patient to follow his own trade, to live in his own home and to be self-supporting.

“It is not possible for a patient whose working capacity is only 50% to compete with healthy workmen, and he should not be allowed to do so. To obtain half or quarter time work is extremely difficult.

“In the circumstances the work and the work-places should be provided for these patients, and the State or the local authority should give the necessary financial assistance for this purpose. In towns and urban areas it should not be difficult to open workshops for tubercular patients. These would no doubt be run at a loss, but they would prove less expensive than sanatorium treatment. They would be supervised by the Care Committee and by the tuberculosis officer, who would be responsible for prescribing the amount of work for each patient. There are many patients attending the dispensaries at present who are doing no work, and who would greatly benefit by two or three hours' occupation every day in such places.

54a.

Name of Institution.	Under Treatment Dec. 31st, 1919.		Admitted during 1920.		Discharged during 1920.		Condition on Discharge.					Receiving Treatment Dec. 31st, 1920.	
	Male.	Female.	Male.	Female.	Male.	Female.	Fit for Work.	Improved.	Without Improve- ment.	Worse.	Died.	Male.	Female.
SANATORIA.													
Kent County Sanatorium, Lenham	5	—	27	43	19	22	29	3	4	4	1	13	21
Bramblewood Sanatorium, Holt	—	—	—	2	—	2	1	1	—	—	—	—	—
Frimley Sanatorium & Brompton Hospital	—	1	2	11	1	11	—	10	2	—	—	1	1
Grosvenor Sanatorium, Kennington	—	—	2	4	2	2	1	1	1	1	—	—	2
Holy Cross Sanatorium, Haslemere	—	—	—	3	—	3	1	1	1	—	—	—	—
Ipswich Borough Sanatorium	—	—	1	—	1	—	1	—	—	—	—	—	—
King Edward VII. Sanatorium, Midhurst	—	—	1	—	1	—	1	—	—	—	—	—	—
Merivale Sanatorium, nr. Chelmsford	—	—	—	1	—	—	—	—	—	—	—	—	1
Mundesley Sanatorium	—	—	1	—	1	—	—	1	—	—	—	—	—
National Sanatorium, Benenden	—	—	2	—	2	—	2	—	—	—	—	—	—
Royal National Sanatorium, Bournemouth	—	—	—	1	—	1	1	—	—	—	—	—	—
Royal National Sanatorium, Ventnor	—	—	3	—	1	—	1	—	—	—	—	2	—
Woodhurst Sanatorium, Dorking	—	—	—	1	—	1	—	—	1	—	—	—	—
Nayland Sanatorium, Colchester	—	1	—	1	—	1	1	—	—	—	—	—	1
HOSPITALS.													
Eversfield Chest Hospital, St. Leonards	—	—	—	1	—	1	—	1	—	—	—	—	—
Keycol Hill Hospital, nr. Sittingbourne	2	4	3	24	4	19	6	10	1	1	5	1	9
London Hospital, E. (In-Patients)	—	1	1	—	—	—	—	—	—	—	—	1	1
(Out-Patients)	1	1	2	5	1	1	—	2	—	—	—	2	5
St. Thomas's Hospital, Westminster	—	—	3	3	3	3	1	3	1	—	1	—	—
University College Hospital, W.C.	—	—	—	1	—	—	—	—	—	—	—	—	1
SPECIAL INSTITUTIONS FOR CHILDREN.													
Alton Cripple Home, Hants.	2	3	1	2	1	3	2	—	—	—	1	2	2
Clevedon Convalescent Home, Broadstairs	1	1	—	1	—	—	—	—	—	—	—	1	2
Children's Sanatorium, Holt	—	1	1	—	1	1	—	2	—	—	—	—	—
Children's Hospital, Shadwell	—	1	—	—	—	1	—	—	1	—	—	—	—
Oak Bank Open-air School, nr. Sevenoaks	1	—	2	11	3	5	3	5	—	—	—	—	6
Queen Mary's Hospital, Carshalton	1	—	—	—	1	—	—	1	—	—	—	—	—
St. Catherine's Hospital, Ventnor	—	—	1	2	—	1	1	—	—	—	—	1	1
Victoria Home, Margate	—	1	5	5	1	5	—	4	1	—	1	4	1
Wyton Sanatorium, Huntingdon	—	—	1	3	—	—	—	—	—	—	—	1	3
SURGICAL INSTITUTIONS.													
Alexandra Hospital, Bloomsbury	1	1	1	1	—	1	—	—	1	—	—	2	1
Convalescent Home, Cranbrook	—	—	1	3	1	1	—	1	1	—	—	—	2
Gravesend General Hospital	2	—	5	2	4	2	—	6	—	—	—	3	—
Hip Hospital, Sevenoaks	1	—	1	—	1	—	—	1	—	—	—	1	—
Matching Green Convalescent Home, Harlow	—	—	—	1	—	—	—	—	—	—	—	—	1
Royal Sea Bathing Hospital, Margate	4	6	7	13	3	10	7	5	—	—	1	8	9
Royal Victoria Hospital, Folkestone	2	1	11	9	9	9	1	14	3	—	—	4	1
West Kent Hospital, Maidstone	—	—	—	1	—	1	—	1	—	—	—	—	—
Totals	23	23	85	155	61	107	62	72	18	6	10	47	71

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54b.

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“In addition to supplying work and work-places and keeping them under supervision the patients’ homes should also receive attention. It may be said that tuberculosis cannot to any large extent be attributed to bad housing. Whether this is the fact or not, there is no doubt that a patient recovering from tuberculosis should be well housed and live under good hygienic conditions. In this connection certain of the new houses that are being erected by housing authorities might be set aside for tuberculous patients and their families.”

DR. RAYNER:—“I find that the majority of patients are very willing to carry out instructions and to take an interest in their “cure,” especially those who have undergone institutional treatment.

“The most difficult case to deal with is that of the tubercular mother, who cannot leave the home for domestic reasons, nor can she properly carry out home treatment. It is on the children’s account that she should undergo treatment, and it is on their account that she is unable to do so. This is a vicious circle which presents a problem for very urgent solution.

“Although the attitude of patients, as regards any treatment, is improving, nevertheless, the old one of ‘What am I to take for this, doctor?’ is still largely to the fore, and, until better education brings them to the right frame of mind, we shall make little real progress in our attempts to prevent or retard the spread of disease, and especially so in the case of tuberculosis.”

Tables 13 and 14 give particulars of the treatment of insured and uninsured patients in institutions during 1920. The Kent Insurance Committee pay the expenses of necessitous insured patients incurred in travelling to and from sanatoria. The Kent County Council similarly pay the expenses of uninsured patients.

Travelling expenses are also paid by both bodies in those cases where it is desirable that the patients should attend at a dispensary for examination and treatment, and when otherwise they would be unable to take advantage of the facilities offered.

REPORT ON LENHAM SANATORIUM (By Dr. J. R. MCGREGOR).

(NOTE.—The classification used throughout the report is that of Turban-Gerhardt which states that:—

STAGE i. comprises those with disease of slight severity, limited to small areas on either side, which in the case of infection of both apices does not extend below the spine of the scapula or the clavicle, or in the case of affection of the apex of one lung does not extend below the second rib in front.

STAGE ii. comprises those with disease of slight severity more extensive than Stage i. but affecting at most the whole of one lobe, or severe disease extending at most to the half of one lobe.

STAGE iii. includes all cases of greater severity than group ii., and all those with considerable cavities.)

The sanatorium was opened for the reception of fifty male patients on December 1st, 1919. On April 1st, 1920, fifty beds were opened for female patients. The Canterbury block was opened for twenty-five male patients on November 1st, 1920.

During the period December 1st, 1919, to December 31st, 1920, three hundred and fourteen patients were admitted to the institution, of whom two hundred and fourteen were males and one hundred were females. Of the males one hundred and eighty seven were insured and twenty-seven were not insured. One hundred and twenty-seven of the males were ex-service men. Of the females sixty-five were insured and thirty-five not insured.

During the period one hundred and eighty-three patients were discharged, of whom one hundred and thirty-three were males and fifty were females. Four male patients died in the institution.

DURATION OF TREATMENT.

Duration in weeks—	under 4	4-8	8-12	12-16	16-20	20-24	over 24
Males	11	19	17	34	25	11	20
Females	1	3	3	14	6	14	9
Total	12	22	20	48	31	25	29

The average duration of stay for male patients was 106 days, and for females 126 days.

The majority of the patients, especially the male patients, entered the sanatorium with the idea that their period of treatment was to last thirteen weeks, and thirteen weeks only. Difficulty was experienced in persuading many of them to stay longer than that period. Too often has the opinion been expressed that two to three months spent in the sanatorium will put the patient alright or will cure him. Such an impression is harmful and should seldom be entertained when active tuberculosis is present. Most of the patients, especially the earlier ones, should stay at least four months, and a smaller group as many as six to twelve months.

Twelve patients left the institution before completing four weeks of treatment. Three of these were sent to the West Kent Hospital for operative procedure. The remainder left for various reasons, chiefly home troubles, financial or otherwise, or they found that the rules and regulations of the institution were too stringent for them.

TREATMENT.—The treatment given in the institution comprised hygienic and dietetic treatment, rest, graduated exercise and work, the employment of appropriate drugs when indicated, and treatment by vaccines in special cases.

The patients performed their walking exercise on the roads surrounding the institution, a privilege much appreciated, and very rarely abused.

The graduated work was performed in the garden. It was thoroughly explained to the patients that work was an important factor in their progress to recovery, and with very few exceptions no trouble was experienced in getting them to perform their allotted tasks. Patients on the heaviest grade of work did four hours work daily, *e.g.* heavy digging. A bowling green was commenced, and many tons of thick heavy clay were dug and removed in the preliminary levelling of the ground.

An X-ray apparatus has been ordered, and it is hoped when it is delivered to commence the induction of artificial pneumothorax in suitable cases.

At frequent intervals lectures were given to the patients, both collectively and individually, with an educative end in view, on the importance of open air and sunshine, proper hygiene and environment, the collection and destruction of sputum, and the prevention of carrying infection, together with the reasons for such measures.

RESULTS OF TREATMENT.—The following factors are best considered in judging results: variation in weight, in working capacity, in the results of sputum examination, in the condition of disease on dismissal, and the ultimate prognosis as estimated on discharge:—

		Weight.			
Increase in lbs.	1-5	5-10	10-15	15-20	over 20
Males	39	38	22	2	1
Females	18	8	10	3	2
Percentage showing increase				76 %	
Weight stationary (24)				14 %	
Weight lost (20)				10 %	

Weight is probably the least significant of factors in assaying results of treatment. It is, however, of no mean significance in measuring the social contentment of the patients to whom the weekly weighing is the most impressive part of sanatorium life.

Large increases in weight produced by gross feeding are not permanent and frequently diminish or are lost when the patient returns to work, with the result that patients become worried about themselves and depressed. If the patient's weight at the commencement of treatment is below what it is

normally, an increase should be aimed at, and if this can be achieved while the patient is working and exercising freely, the patient has more chance of keeping the weight on return to his occupation.

Loss of weight is of some significance, and a comparison of the percentage losing weight with the percentage whose condition deteriorated shows a rough balance. Generally speaking, the more the amount of mischief a patient has, if his condition improves with treatment, the more weight he puts on. In other words a moderately advanced case capable of improvement will put on more weight than an early case, the reason being that the weight of the moderately advanced case is more below its normal than the weight of the early case.

Of the twenty cases that lost weight four died in the institution, seven were discharged at the relatives' request, as they were likely to die in the near future. The condition of the remaining nine was worse than on admission.

WORKING CAPACITY OF PATIENTS ON DISCHARGE AS COMPARED WITH CAPACITY ON ADMISSION.

Group.	Patients with Negative Sputum.						Patients with Positive Sputum.					
	Full working capacity.		Fit for light work.		Unfit for work.		Full working capacity.		Fit for light work.		Unfit for work.	
	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.	On admission.	On discharge.
(i.) Males	2	34	36	11	8	1	—	2	1	—	2	1
Females	—	12	10	3	6	1	—	3	3	1	1	—
(ii.) Males	1	11	7	4	9	2	—	3	—	7	18	8
Females	—	4	2	2	5	1	—	4	1	2	6	1
(iii.) Males	—	3	1	4	9	3	—	8	1	15	42	20
Females	—	—	—	2	2	—	—	1	1	7	13	6

Increase in working capacity is not an infallible guide to ultimate results of treatment. Apart from affording immediate satisfaction in the incapacitated patient, it represents one of the most important returns from a financial point of view for the expenditure on the treatment of consumption.

On admission 1·6 % of the patients were fit to carry on their usual occupation, and even then with a reasonable expectation of a break down in the near future. 65 % were totally incapacitated.

On discharge 45 % were fit to carry on their usual occupation, 31 % were fit to carry on a lighter occupation and 24 % were totally incapacitated.

The difficulty with the 31 % partially incapacitated patients is that these patients are unable to get suitable occupations on discharge, and break down again within a short period, or remain permanently on the sick list. There is practically no scope for the half-timer in modern industry.

It will be noted that 74 % of the Group I. cases were fit for return to their ordinary occupations, 44 % of the Group II. and only 17 % of Group III.

Results of sputum examinations :—

Percentage of male admissions positive, 47 %.

Percentage of female admissions positive, 50 %.

Percentage of male positive cases becoming negative or no sputum, 37·5 %.

Percentage of female positive cases becoming negative or no sputum, 70 %.

The percentage bacillary loss amongst females is almost twice as high as those amongst males. Again a much larger percentage of female patients had no sputum at the end of treatment than males.

The figures tend to bear out the fact that with women the course of the disease is, and tends to become, more favourable than with men.

The results of sputum examinations are of the greatest importance in judging the results of sanatorium treatment. Patients with no bacilli in their sputum on admission have a far better chance of recovery than those with bacilli present, and to wait, as is sometimes done, for a confirmatory diagnosis of pulmonary tuberculosis, by a positive sputum before sending a patient to a sanatorium, hinders the patient's chance of a cure.

The prospects of patients whose sputum changes from positive to negative during treatment are also good, although a much longer period of treatment will be necessary.

The prospects of those whose sputum remains positive during treatment are least satisfactory, and the prognosis generally in these cases is bad.

CONDITION OF DISEASE ON DISCHARGE OF PATIENTS.

Group.	Arrested.	Improved.	<i>In Statu Quo.</i>	Worse.	Died.
Positive sputum:—					
(i.) { Males	—	3	—	—	—
{ Females	4	—	—	—	—
(ii.) { Males	3	7	5	2	1
{ Females	—	5	—	1	—
(iii.) { Males	2	18	11	9	3
{ Females	—	8	4	2	—
Negative sputum:—					
(i.) { Males	34	10	1	1	—
{ Females	11	3	1	1	—
(ii.) { Males	7	7	1	2	—
{ Females	2	5	—	—	—
(iii.) { Males	1	3	1	—	—
{ Females	—	2	—	—	—

The term “arrested” has been used to denote those cases which have no signs nor symptoms on discharge. The “improved” group denotes those who were very considerably better than on admission, some would improve later, and in others the improvement was only temporary.

It will be seen that 56 % of the negative group were arrested on discharge, and only 12 % of the positive group.

ULTIMATE PROGNOSIS.—With the information previously recorded* it is possible to give a rough idea of the probable course of disease amongst those discharged ;—

Ultimate arrest probable, 45 %.

Fatal termination probable, 15 %.

Result doubtful, 40 %.

POSSIBLE SOURCE OF INFECTION.—In 47 cases there was a definite family history.

In 57 cases the disease commenced whilst the patient was on active service, and without any family history.

In 83 cases no definite source of infection could be traced.

CONDITION OF TEETH.—The teeth of all patients were examined on admission, and generally speaking were found to be in a very bad state. It is obvious that a patient with much dental caries cannot masticate food properly, and may thus be liable to digestive trouble. If this caries is associated with pyorrhœa the patient is constantly absorbing poisons which will hinder his treatment. A healthy condition of the teeth and gums is always desired, and in the case of such a chronic disease as tuberculosis it is of the utmost importance.

A number of patients were sent up to Maidstone dentists for extractions, fillings, scrapings and artificial dentures. This procedure was very apt to upset discipline, and it would be much more satisfactory if the patients' mouths were attended to before they were admitted or a visiting dentist were appointed to the sanatorium.

SOCIAL SIDE.—This is a very important side of sanatorium life.

There is a recreation room for men and one for women patients.

Tournaments in billiards, snooker, darts, &c., are arranged periodically, and combined whist drives are held monthly. Concerts have been given at regular intervals by outside concert parties, and two very excellent concerts were arranged and performed by the patients themselves.

The library is much used, and 100 volumes have recently been presented to the institution by Sir Ernest Hodder-Williams.

The female patients have a piano, and the males a gramophone.

The patients are permitted to visit Lenham village one day weekly, a privilege much appreciated.

These amusements all help to alleviate the tendency to despondency which occurs so often in patients undergoing treatment for prolonged periods.

REPORT ON KEYCOL HILL HOSPITAL TUBERCULOUS PAVILION (BY DR. N. ROBSON).

The beds—forty—have been continuously occupied during the year, with the exception that occasionally a bed has remained empty for a few days, pending the admission of a patient to take the place of one who had died or left on short notice.

One hundred and twenty patients have been admitted during the year—52 women and 68 men. A large proportion of these were advanced cases.

Ninety-seven patients have been discharged during the year—44 women and 53 men. Of these ninety-seven patients, ten were in residence for a less period than one month. The average period of stay was 107·4 days.

Twenty-one deaths occurred during the year, seven women and fourteen men; in one instance death took place after a stay of just on two years; in another after just on a year; in five instances death occurred within a fortnight or less of admission.

I have been able to report improvement in most of the cases discharged.

Treatment has been carried out on the same lines as in past years.

A notable improvement in the lighting of the sanatorium was made during the year.

In the year 1919 there were 149 admissions, 133 discharges and 17 deaths.

GENERAL ADMINISTRATION OF SANATORIUM BENEFIT.—The general principles in the administration of Sanatorium Benefit which have been described fully in my previous annual reports, have again been followed during 1920. Since the war the work has been further extended, chiefly in connection with the treatment of ex-service men.

During the year 1920 there have been 977 applications for Sanatorium Benefit, of which 775 were from males, and 202 from females. Of the 775 males, 582 were ex-service men. Of these 977 patients, 871 suffered from pulmonary tuberculosis, 81 from non-pulmonary tuberculosis, and 25 from combined pulmonary and non-pulmonary tuberculosis. The age and occupational classification of the patients are shown in Tables 11 and 12.

Information respecting the dispensary and institutional treatment of insured patients is given in Tables 10, 11, 12, 14 and 15.

With respect to nourishment ancillary to treatment, this was only granted to insured persons and ex-service men. The same procedure as outlined by me previously has been continued with regard to insured persons. In the case of ex-service men the nourishment is provided at the expense of the War Pensions Committee, where the case is held to be attributable to or aggravated by service.

During 1920, four hundred and thirty-seven orders for nourishment ancillary to treatment were issued by the Insurance Committee, divided in the following scales :—

"A" 1 pint of milk per day...	...	...	...	3
"B" 1 pint of milk and 1 egg per day	...	...	...	110
"C" 1 pint of milk and 1 egg per day, and $\frac{1}{2}$ -lb. of of butter per week	...	...	...	324
Total...	...	...	...	437

TABLE No. 15.—Showing, for each Sanitary Area in Kent, the numbers of Insured Patients who have received Domiciliary, Dispensary and Institutional Treatment, under Sanatorium Benefit during the year 1920.

Sanitary District.	PATIENTS WHO HAVE RECEIVED SANATORIUM BENEFIT.															Deaths during 1920.	
	No. of applications for Sanatorium Benefit during the year 1920.	DOMICILIARY.			DISPENSARY.			INSTITUTIONAL.			TOTAL.						
		Total No. of 1920 cases who had this form of treatment during the year 1920.	1920 and all earlier cases who had this form of treatment during the year 1920.	Total No. of cases having this form of treatment on 31st Dec., 1920.	Total No. of 1920 cases who had this form of treatment during the year 1920.	1920 and all earlier cases who had this form of treatment during the year 1920.	Total No. of cases having this form of treatment on 31st Dec., 1920.	Total No. of 1920 cases who had this form of treatment during the year 1920.	1920 and all earlier cases who had this form of treatment during the year 1920.	Total No. of cases having this form of treatment on 31st Dec., 1920.	Total No. of 1920 cases who had any form of treatment during the year 1920.	1920 and all earlier cases who had any form of treatment during the year 1920.	Total No. of cases having any form of treatment on 31st Dec., 1920.				
M.	F.	a	b	c	a	b	c	a	b	c	a	b	c	M.	F.		
Area No. 1.																	
Dartford ...	20	5	7	18	4	30	75	58	14	21	6	51	114	68	9	2	
Footscray ...	6	4	3	8	5	8	14	11	7	9	5	18	31	21	—	—	
Dartford Rural (part) ..	19	4	6	15	4	24	37	32	14	19	4	44	71	40	10	2	
Bromley ...	16	7	7	25	14	28	34	28	14	27	6	49	86	48	4	1	
Chislehurst ...	2	—	—	1	1	2	5	3	—	1	—	2	7	4	—	—	
Bromley Rural ...	9	3	3	18	8	13	34	26	8	16	5	24	68	39	5	3	
Erith ..	23	10	6	18	10	35	84	59	20	37	9	61	139	78	9	3	
Bexley ...	10	4	4	14	8	13	29	21	6	9	3	23	52	32	1	2	
Totals for Area No. 1.	105	37	36	117	54	153	312	238	83	139	38	272	568	330	38	13	
Area No. 2.																	
Chatham...	38	9	8	24	4	51	159	131	21	49	7	80	232	142	25	10	
Gillingham ...	29	4	5	16	7	30	139	124	22	41	8	57	196	139	8	—	
Gravesend ...	24	5	7	16	4	27	68	57	7	16	3	41	100	64	5	5	
Rochester ...	18	5	1	7	2	22	112	91	11	27	10	34	146	103	10	—	
Northfleet ...	7	4	3	5	1	10	27	22	5	6	1	18	38	24	3	1	
Dartford Rural (part) ..	1	—	—	1	1	1	4	2	1	2	1	2	7	4	—	—	
Hoo Rural ...	7	—	1	4	3	7	15	11	2	7	1	10	26	15	1	—	
Malling Rural (part) ...	2	—	—	—	—	2	5	5	—	1	—	2	6	5	—	—	
Milton Rural (part) ...	2	1	—	2	1	3	7	6	—	—	—	3	9	7	2	—	
Strood Rural ..	2	—	—	5	1	2	8	4	2	3	1	4	16	6	2	2	
Totals for Area No. 2.	130	28	25	80	24	155	544	453	71	152	32	251	776	509	56	18	
Area No. 3.																	
Tonbridge ...	14	6	9	11	3	11	36	23	13	18	8	33	65	34	4	1	
Tonbridge Rural ...	14	—	9	29	20	3	11	9	6	14	6	18	54	35	2	2	
Tunbridge Wells ...	21	6	16	46	31	12	52	36	11	23	7	39	121	74	5	1	
Southborough ...	3	—	2	10	7	1	5	4	1	3	2	4	18	13	2	—	
Sevenoaks ...	5	6	5	7	5	6	24	16	6	11	3	17	42	24	1	1	
Sevenoaks Rural ...	13	2	7	29	20	5	24	15	4	14	5	16	67	40	2	—	
Cranbrook Rural ...	9	1	8	21	14	—	1	1	5	13	1	13	35	16	1	—	
Totals for Area No. 3.	79	21	56	153	100	38	153	104	46	96	32	140	402	236	17	5	
Area No. 4.																	
Maidstone ...	35	9	11	29	8	42	84	52	18	29	12	71	142	72	4	2	
Wrotham ...	5	1	7	13	4	1	2	2	4	7	1	12	22	7	4	1	
Hollingbourn ...	6	2	8	16	6	7	21	11	5	6	—	20	43	17	3	—	
Maidstone Rural ...	9	4	4	6	9	11	20	8	7	11	6	22	37	23	3	1	
Malling Rural (part) ...	14	4	12	23	9	11	18	15	11	18	6	34	59	30	3	1	
Sittingbourne ...	14	—	3	11	5	14	36	25	4	8	3	21	55	33	1	1	
Milton Regis ...	4	1	1	5	1	6	17	14	2	8	—	9	30	15	4	—	
Milton Rural (part) ...	7	1	—	2	1	10	23	18	3	6	—	13	31	19	2	—	
Queenborough ...	4	—	2	3	1	3	11	5	3	5	2	8	19	8	2	—	
Sheerness ...	16	5	1	6	3	23	53	32	8	16	6	32	75	41	3	—	
Sheppey Rural ...	4	—	—	—	—	4	7	4	2	2	1	6	9	5	1	—	
Totals for Area No. 4.	118	27	49	114	47	132	292	186	67	116	37	248	522	270	30	6	
Area No. 5.																	
Bridge ...	11	4	7	10	4	6	20	12	8	11	8	21	41	24	1	—	
Cheriton ...	2	1	—	1	—	3	12	12	2	6	1	5	19	13	1	—	
Deal ...	12	—	3	10	4	9	27	18	2	10	5	14	47	27	5	—	
Dover ...	46	7	13	29	12	42	107	72	12	27	8	67	163	92	7	3	
Folkestone ...	27	7	7	18	11	23	71	44	13	26	10	43	115	65	10	2	
Hythe ...	6	—	1	3	2	6	9	7	3	6	1	10	18	10	—	—	
Sandwich ...	3	2	3	3	1	3	6	4	1	2	—	7	11	5	1	—	
Sandgate...	—	—	—	1	—	—	1	—	—	—	—	—	2	—	—	—	
Walmer ...	2	1	1	1	—	2	3	1	1	1	1	4	5	2	2	—	
Dover Rural ...	2	1	2	5	2	—	6	3	2	4	2	4	15	7	2	1	
Eastry ...	9	—	5	10	7	5	11	10	2	4	1	12	25	18	2	—	
Elham ...	3	1	3	5	1	1	11	5	1	3	2	5	19	8	3	1	
Totals for Area No. 5.	123	24	45	96	44	100	284	188	47	100	39	192	480	271	34	7	
Area No. 6.																	
Ramsgate ...	25	5	6	13	7	25	56	44	4	6	2	35	75	53	4	4	
Broadstairs ...	11	7	6	11	5	10	27	24	2	2	2	18	40	31	2	—	
Margate .	57	7	24	38	18	38	74	58	23	31	16	85	143	92	8	—	
Thanet ...	12	3	10	16	11	8	13	11	2	6	1	20	35	23	4	—	
Faversham ...	12	3	7	9	1	12	36	26	4	9	3	23	54	30	4	2	
Faversham Rural ...	8	—	5	8	4	2	17	15	2	6	—	9	31	19	3	—	
Herne Bay ...	5	6	6	15	1	7	25	19	5	8	4	18	48	24	1	—	
Whitstable ...	9	2	—	9	—	9	15	11	3	5	2	12	29	13	3	2	
Blean Rural ...	3	2	3	6	4	1	11	9	1	4	1	5	21	14	1	—	
Totals for Area No. 6.	142	35	67	125	51	112	274	217	46	77	31	225	476	299	30	8	
Area No. 7.																	
Beckenham ...	25	10	1	2	—	33	44	24	14	17	4	48	63	33	4	4	
Penge ...	16	5	4	7	7	16	32	34	9	14	5	29	53	41	11	—	
Totals for Area No. 7.	41	15	5	9	7	49	76	58	23	31	9	77	116	74	15	4	
Area No. 8.																	
Ashford ...	18	5	4	12	8	20	33	26	5	11	5	29	56	39	3	2	
Ashford, East ...	9	3	4	8	4	7	29	24	2	5	4	13	42	32	3	—	
Ashford, West ...	1	3	2	6	2	2	7	3	2	3	3	6	16	8	2	—	
Lydd ...	—	1	1	3	1	—	2	1	1	2	2	2	7	4	—	—	
New Romney ...	1	—	—														

In addition to the above, thirteen hundred and eighty-nine orders for nourishment ancillary to treatment were issued by the War Pensions Committee in respect of ex-service men, divided in the following scales :—

"A" ...	...	...	...	...	...	...	8
"B" ...	...	...	...	...	...	...	183
"C" ...	...	...	...	...	...	...	1008
"Special" ...	...	...	...	...	...	...	190
							1389

Dental treatment, with new dentures in the majority of instances, was provided in eighty-four cases. Details of the provision of surgical apparatus to patients are shewn on page 48.

Five thousand nine hundred and twenty-five visits were paid to patients at their homes, by the various nurses on the staff of the County Health Department, during the year under review. Of this number, eighteen hundred and sixty-five visits were to ex-service men.

NON-NOTIFIABLE DISEASES.

MEASLES.—Mortality from measles during the past thirteen years :—

Year.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	
													Kent.	England & Wales.
Rate per 1,000	0·12	0·07	0·08	0·36	0·10	0·16	0·08	0·19	0·08	0·22	0·17	0·07	0·10	0·19

The compulsory notification of measles lapsed at the end of 1919. In three districts in the county it is voluntarily notifiable, viz., Dartford, Folkestone, and Herne Bay.

All teachers in the area of the Kent Education Committee have a supply of forms on which to notify immediately any definite or suspected case of the disease which occurs among the scholars.

The death-rate from the disease in Kent was again low, and was only slightly more than half the rate for the country as a whole.

WHOOPING COUGH.—Mortality from whooping cough during the past thirteen years :—

Year.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	
													Kent.	England & Wales.
Rate per 1,000	0·14	0·08	0·23	0·12	0·19	0·10	0·11	0·18	0·16	0·11	0·15	0·07	0·10	0·11

Whooping cough was more prevalent than in the previous year, as judged by the cases reported from schools, and there was a slight increase in the death-rate, ninety-seven deaths being attributed to this cause as against 60 in 1919. The chief mortality was in Ramsgate (10) and Maidstone (7). Twenty-two schools were closed on account of this disease in the non-autonomous areas, compared with five in the previous year.

Cases occurring among children attending the Kent Education Committee's schools are immediately notified by the teachers.

DIARRHOEA.—Mortality from diarrhoea during the past thirteen years :—

Year.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	*1916	*1917	*1918	*1919	*1920.	
													Kent.	England & Wales.
Rate per 1,000	0·29	0·16	0·12	0·95	0·15	0·30	0·34	0·27	10·06 0·33	8·44 0·30	7·52 0·26	7·00 0·22	4·82 0·18	8·3 —

There was again a slight decrease in the number of deaths from diarrhoea, as compared with the previous year, the numbers (in children under two years of age) being 123 and 129 respectively. Ninety-six of the deaths occurred in urban districts and twenty-seven in rural, and the chief mortality is noted in Gillingham with twelve deaths, in Dover with eleven deaths, and in Chatham with nine deaths. The figures for Kent, shown in the above table, show a very satisfactory decrease.

INFLUENZA.—The mortality from influenza in the various districts is shown in tables 34 and 35. It will be noted that the total has fallen from 2719 in 1918, and 815 in 1919, to 174 in the year under review. These figures will indicate how serious was the outbreak in 1918-19.

CANCER.

I gave a brief account in my annual report for 1918 of scientific investigations which have been carried out in connection with this disease. The disease was responsible for more deaths in the county than any other disease during 1920.

* From 1916 onwards the death-rates from diarrhoea relate to children dying under two years of age per 1,000 births (upper figure), and to total deaths per 1,000 of the population (lower figure). The latter shews the comparison with years previous to 1916.

TABLE 16.—**Cancer Death Rates** in each Sanitary District in the County of Kent, arranged in diminishing sequence.

DISTRICT.	Average yearly death-rate of thirteen years, 1908-1920.	Death-rate, 1908.	Death-rate, 1919.	Death-rate, 1920.	DISTRICT.	Average yearly death-rate of thirteen years, 1908-1920.	Death-rate, 1908.	Death-rate, 1919.	Death-rate, 1920.
Tunbridge Wells Borough	1.60	1.35	1.79	1.88	New Romney Borough ...	0.86	1.51	1.39	0.00
Ramsgate Borough	1.46	1.25	1.37	1.37	Gillingham Borough	0.85	0.62	1.11	0.77
Herne Bay Urban	1.44	1.02	1.06	1.06	Erith Urban.....	0.80	0.52	1.14	1.01
Whitstable Urban	1.41	1.02	1.63	1.64	Cheriton Urban	0.69	0.75	0.62	1.28
Deal Borough	1.41	0.94	2.07	1.61	Queenborough Borough ...	0.59	1.00	1.15	0.87
Broadstairs & St. Peter's Urban	1.34	1.86	1.38	1.26	Crayford Urban	—	—	—	0.67
Sevenoaks Urban	1.32	1.07	1.31	1.22	All Urban Districts ..	1.12	0.89	1.27	1.26
Southborough Urban	1.30	1.67	1.27	1.98					
Footsray Urban.....	1.28	1.19	1.60	1.71	Ashford, West.....	1.54	1.22	1.32	2.76
Ashford Urban	1.25	0.76	2.37	1.97	Hollingbourn	1.38	0.24	1.56	1.56
Folkestone Borough	1.23	0.85	1.09	1.12	Cranbrook	1.36	1.30	1.27	1.78
Bromley Borough	1.22	0.99	1.25	1.22	Ashford, East	1.33	1.12	0.87	1.66
Penge Urban	1.22	0.92	1.23	1.74	Elham	1.32	1.31	1.94	1.11
Margate Borough	1.21	1.09	1.59	1.68	Bromley	1.21	1.77	0.81	1.40
Maidstone Borough.....	1.18	0.95	1.28	1.12	Dover	1.19	0.49	1.44	1.90
Beckenham Urban	1.16	0.94	1.63	1.40	Sevenoaks.....	1.18	1.13	1.71	1.25
Sandgate Urban	1.16	0.00	0.00	1.03	Tonbridge.....	1.18	1.29	1.43	1.65
Faversham Borough	1.15	1.08	1.94	1.30	Romney Marsh	1.16	0.79	2.24	1.50
Hythe Borough	1.14	1.44	1.26	1.38	Eastry	1.14	0.90	1.58	1.37
Gravesend Borough.....	1.11	0.90	0.89	1.15	Maidstone	1.09	0.79	0.91	1.63
Dover Borough	1.09	0.93	0.86	1.09	Faversham	1.07	1.27	1.14	1.14
Tonbridge Urban.....	1.08	0.74	0.79	1.37	Bridge	1.04	0.39	1.13	1.24
Rochester City.....	1.05	0.77	1.02	1.04	Malling	1.04	0.78	0.99	1.16
Walmer Urban	1.05	0.33	1.46	0.70	Blean.....	1.03	0.84	0.68	1.36
Bexley Urban	1.04	0.77	1.06	1.38	Thanet	1.03	0.55	1.46	1.67
Chatham Borough	1.04	0.84	1.43	1.38	Hoo	1.01	0.97	0.97	0.73
Sandwich Borough	1.02	0.32	0.31	1.53	Dartford	0.95	0.61	0.80	1.10
Tenterden Borough.....	1.02	0.00	0.83	0.00	Strood	0.92	0.91	1.24	1.35
Sittingbourne Urban	1.01	0.66	0.89	1.45	Tenterden.....	0.91	1.03	0.72	0.72
Northfleet Urban	1.00	0.50	0.98	1.76	Milton	0.88	0.83	1.04	1.34
Lydd Borough.....	0.95	0.36	1.34	0.00	Sheppey	0.68	1.22	0.51	0.77
Milton Regis Urban	0.95	0.64	0.96	2.47					
Wrotham Urban.....	0.94	0.77	0.25	1.71	All Rural Districts ...	1.11	0.94	1.16	1.38
Chislehurst Urban	0.91	0.62	0.92	0.46	All Urban Districts ...	1.12	0.89	1.27	1.26
Dartford Urban	0.88	0.62	1.24	0.69					
Sheerness Urban	0.88	0.69	1.70	0.65	Whole County	1.11	0.90	1.23	1.29

Reference to the following tabulation shows that the death-rate from cancer in Kent appears to be increasing steadily on the whole, and table 16 shews the annual death-rates in each sanitary district in the County of Kent, arranged in diminishing sequence.

CANCER.--Mortality from cancer during the past thirteen years :—

Kent.	1908.	1909.	1910.	1911.	1912.	1913.	1914	1915	1916	1917	1918	1919	1920
URBAN.													
No. of Deaths	648	669	676	765	783	798	842	869	851	849	923	903	929
Death-rate ...	0·89	0·90	0·89	1·08	1·09	1·10	1·14	1·24	1·17	1·19	1·31	1·27	1·26
RURAL.													
No. of Deaths	281	281	276	327	324	360	348	349	357	372	385	354	42
Death-rate ...	0·94	0·93	0·91	1·05	1·05	1·14	1·11	1·14	1·12	1·19	1·23	1·16	1·38
TOTAL.													
No. of Deaths	929	950	952	1092	1107	1158	1190	1218	1208	1221	1308	1257	1349
Death-rate ...	0·90	0·91	0·90	1·07	1·08	1·11	1·13	1·21	1·16	1·19	1·28	1·23	1·29

Age and sex distribution of deaths from cancer in the County of Kent during the last six years :—

All ages.				0-1.	1-2.	2-5.	5-15.	15-25	25-45	45-65	65 up- wards.
1915.	{ M. ..	564	2	—	—	4	5	32	240	281	
	{ F. ...	701	—	—	—	3	4	70	308	316	
1916.	{ M. ...	535	—	—	2	2	2	26	223	280	
	{ F. ...	673	—	—	—	1	3	64	278	327	
1917.	{ M. ...	536	—	1	—	2	2	28	223	280	
	{ F. ...	685	—	—	2	2	—	80	311	290	
1918.	{ M. ...	568	...	1	...	3	1	23	257	283	
	{ F. ...	740	...	...	1	...	1	62	320	356
1919.	{ M. ..	524	...	...	...	...	1	21	239	263
	{ F. ...	733	...	1	...	1	6	63	332	330	
1920.	{ M. ...	604	...	...	1	3	6	44	244	306
	{ F. ...	745	...	...	...	1	3	77	320	344

VENEREAL DISEASES.

The county scheme for the diagnosis and treatment of venereal diseases came into effect in 1917, and summaries of the Public Health (Venereal Diseases) Regulations, together with supplementary memoranda and circulars issued by the Ministry of Health, have been printed in my annual reports for 1916, 1918 and 1919. Those issued in 1920 will be found summarised on page 10 of this report.

At the time of writing this report, clinics are in operation at the following hospitals and other centres in Kent :—

Situation of Clinic.	Consultations.				Medical Officers in Charge.
Kent and Canterbury Hospital, Canterbury	Men	{ Tuesdays	6 p.m.		Drs. H. S. Wachter and E. D. Whitehead Reid
	Women	{ Saturdays	10 a.m.		
37, West Hill, Dartford	Men	{ Mondays	6 p.m.		Drs. M. W. Renton & C. M. Ockwell
	Women	{ Thursdays	6 p.m.		
Royal Victoria Hospital, Dover	Men	{ Mondays	5 p.m. to 7 p.m.		Dr. A. J. Fairlie Clarke
	Women	{ Wednesdays	5 p.m. ,, 7 p.m.		
Royal Victoria Hospital, Folkestone	Men	{ Tuesdays	5 p.m. ,, 6 p.m.		Dr. W. C. P. Barrett
	Women	{ Mondays	8 p.m.		
General Hospital, Gravesend	Men	{ Thursdays	4 p.m.		Dr. C. Pinching
	Women	{ Mondays	8 p.m.		
St. Bartholomew's Hospital Rochester	Men	{ Thursdays	4 p.m.		Dr. H. H. Cotman
	Women	{ Mondays	8 p.m.		
General Hospital, Tunbridge Wells	Men	{ Mondays	3.30 p.m. ,, 5.30 p.m.		Drs. R. W. Ranking & F. B. Manser
	Women	{ Fridays	7.30 p.m. ,, 9.30 p.m.		
1, Barrow Hill Place, Ashford	Men	Thursdays	3.30 p.m. ,, 5.30 p.m.		Dr. W. L. Cassells
	Women	Thursdays	3.30 p.m. ,, 5.30 p.m.		
2, Albion Terrace, Faversham	Men	Fridays	5 p.m. ,, 6 p.m.		Dr. W. L. Cassells
	Women	Wednesdays	5 p.m. ,, 6 p.m.		
Eton House, St. Peter's Road, Margate	Men	{ Tuesdays	5.30 p.m. ,, 7 p.m.		Dr. W. L. Cassells
	Women	{ Thursdays	5.30 p.m. ,, 7 p.m.		
61, Alma Road, Sheerness	Men	{ Thursdays	3 p.m. ,, 5 p.m.		Dr. W. L. Cassells
	Women	{ Fridays	11 a.m. ,, 1 p.m.		
	Men	Fridays	3 p.m.		Drs. R. W. Ranking & F. B. Manser
	Women	Wednesdays	5 p.m.		
	Men	Wednesdays	5 p.m. ,, 7 p.m.		Dr. W. L. Cassells
	Women	Wednesdays	2 p.m. ,, 4 p.m.		
	Men	Thursdays	5 p.m. ,, 7 p.m.		Dr. W. L. Cassells
	Women	Thursdays	2 p.m. ,, 4 p.m.		
	Men	Tuesdays	5 p.m. ,, 7 p.m.		Dr. W. L. Cassells
	Women	Tuesdays	2 p.m. ,, 4 p.m.		
	Men	Fridays	5 p.m. ,, 7 p.m.		Dr. W. L. Cassells
	Women	Fridays	2 p.m. ,, 4 p.m.		

Clinics opened in 1920 were Ashford on July 28th, Faversham on July 29th, and Margate on September 21st. The Sheerness clinic was not opened until January 7th, 1921.

The Kent County Council are also participants in the treatment scheme of the London County Council, which embraces 28 hospitals, and in the facilities offered by the Croydon General Hospital.

The following are particulars of the work carried out during 1920 :—

TABLE 17.

RETURN FOR THE COMBINED KENT CLINICS.

(1) Number of persons who, on 1st January, 1920, were under treatment for :—

							Males.		Females.
Syphilis	...	...	...	...	...	...	239	...	151
Soft chancre	...	...	...	...	...	...	2	...	—
Gonorrhœa	...	...	...	..	...	...	288	...	113
Conditions other than venereal	...	...	...	...	...	...	49	..	26
Total							578	...	290

(2) Number of persons dealt with during the year, at, or in connection with, the out-patient clinics for the first time and found to be suffering from :—

Syphilis only ...	...	...	...	...	...	411	...	208
Soft chancre only	...	...	...	...	..	38	...	8
Gonorrhœa only	...	...	...	...	...	597	...	108
Syphilis and soft chancre	...	...	...	...	...	4	...	2
Syphilis and gonorrhœa	...	...	...	...	...	2	...	—
Gonorrhœa and soft chancre		...	...	...	...	—	...	—
Syphilis, soft chancre and gonorrhœa			...	...	...	—	...	—
Conditions other than venereal		...	...	...	...	176	...	72
						—————		—————
Total ...	...	...	...	...	...	1228	...	393

(3) Number of persons who ceased to attend the out-patients' clinics :—

(a) Before completing a course of treatment for :—

Syphilis	..	...	...	...	..	...	68	...	22
Soft chancre	...	...	...	...	...	...	11	...	—
Gonorrhœa	...	...	..	...	...	...	138	...	21
Conditions other than venereal	...	...	...	...	...	...	—	...	—
Total							217	...	43

(b) After completion of a course of treatment but before final tests as to cure of :—

Syphilis	...	...	...	...	...	...	176	...	97
Soft chancre	...	...	...	...	...	...	21	...	8
Gonorrhœa	...	...	...	...	...	...	243	...	40
Conditions other than venereal	...	...	...	...	...	...	33	...	10
Total							473	...	155

(4) Number of persons transferred to other treatment centres after treatment for :—

Syphilis	...	...	...	...	...	...	24	...	10
Soft chancre	...	...	...	...	...	...	—	...	—
Gonorrhœa	...	...	...	...	...	..	26	...	7
Conditions other than venereal	...	...	...	...	...	...	—	...	—
Total							50	...	17

(5) Number of persons discharged from the out-patient clinics after treatment and observation for :—

Syphilis	...	...	...	...	...	...	102	...	92
Soft chancre	...	...	...	...	...	...	2	...	—
Gonorrhœa	...	...	...	...	...	...	220	...	92
Conditions other than venereal	...	...	...	...	...	...	33	...	32
Total							357	...	216

(6) Number of persons who, on 1st January, 1921, were under treatment or observation for :—

Syphilis	...	...	...	...	...	...	286	...	135
Soft chancre	...	...	...	...	...	...	7	...	1
Gonorrhœa	...	...	...	...	...	...	259	...	61
Conditions other than venereal	...	...	...	...	...	...	23	...	10
Total							575	...	207

(7) Total attendances of all persons at the out-patient clinics who were suffering from :—									
Syphilis	...	...	...	...	...	...	6009	...	2714
Soft chancre	...	...	...	...	...	...	197	...	34
Gonorrhœa	...	...	...	...	...	...	5542	...	1425
Conditions other than venereal	...	...	...	...	...	...	375	...	134
Total							12113	4307	

8.—Number of doses of salvarsan substitutes given in the ;—

Out-patient clinics	...	...	...	...	...	...	4978
In-patient departments	...	...	...	...	...	...	63

TABLE 18. Summary of work at separate Hospitals.

Institution.	Patient Days.	New Patients.				Attendances.				In-Patient Treatment.		Patients discharged including transfers.	Still under Treatment.	Salvarsan Substitutes.	
		Gonorrhœa.	Syphilis.	Soft Chancre.	Not Venereal Disease.	Gonorrhœa.	Syphilis.	Soft Chancre.	Not Venereal Disease.	Patients.	Days.			Patients.	Doses.
Ashford...	22	7	9	—	4	98	67	—	9	—	—	4	16	8	43
Canterbury	204	144	134	—	37	738	1727	—	136	—	—	479	159	319	1671
Dartford..	152	97	27	9	41	1992	278	39	41	—	—	121	49	40	160
Dover ...	186	52	100	4	4	405	736	12	10	9	464	159	55	87	405
Faversham	21	3	10	—	1	22	79	—	3	—	—	4	10	13	62
Folkestone	156	34	49	6	52	305	756	48	113	6	65	66	56	110	473
Gravesend	102	59	57	2	26	153	793	2	66	28	47	94	67	73	317
Margate	14	11	26	1	—	54	153	4	—	—	—	9	29	34	131
Rochester	194	256	179	24	22	2820	3423	126	44	1	4	493	301	464	1485
Tunbridge Wells	104	42	31	—	61	380	711	—	87	4	209	99	40	91	294
Totals...	1155	705	622	46	248	6967	8723	231	509	48	789	1528	782	1239	5041
London Hospitals }	—	182	206	21	113	7282				?	3505	?	?	?	1565

Three Kent patients were admitted to London hostels during the year 1920, aggregating forty-two days in residence.

The Kent scheme also includes the following facilities :—

Examinations of Pathological Specimens for the detection of Spirochætes and Gonococci, and tests for the Wassermann Reaction are undertaken at the bacteriological laboratory attached to the County Medical Officer's department. The numbers of examinations carried out in the county laboratory during the year were as follows :—

For detection of spirochætes	...	{ For treatment centres	...	37
		{ For practitioners	...	8
For detection of gonococci ..	...	{ For treatment centres	...	394
		{ For practitioners	...	234
For Wassermann re-action ...	...	{ For treatment centres	...	1213
		{ For practitioners	..	507
Other examinations ... ..	...		...	66
Total				<u>2459</u>

The Provision of approved "Salvarsan" Substitutes to medical practitioners producing satisfactory evidence of experience in the administration of these drugs. My office index contains the names of sixty-six accredited practitioners, and during the year 3,619 doses were supplied, namely, 429 to private doctors and 3,190 to medical officers of treatment centres. The number of patients under the care of private doctors for whom these substitutes were supplied during the year was fifty-nine.

Repayment of Travelling expenses of Patients from their homes to the nearest Clinic, in necessitous cases.—In cases where a patient cannot receive the treatment required, unless travelling expenses are paid, the County Council defray the cost. The fares of thirty-four patients were paid during 1920.

The Educational and Propaganda Arrangements have been undertaken by the National Council for combating Venereal Diseases, that Council conferring with the County Medical Officer as to arrangements. Local propaganda committees have been formed in the following areas :—Ashford, Chatham, Dartford, Dover, Erith, Faversham, Folkestone, Gravesend, Margate and Sittingbourne.

An extensive press campaign has also been carried on, in conjunction with London and the Home Counties, and posters are exhibited in public conveniences, &c., throughout the county, showing the facilities available for patients.

During 1920 clinics have been opened at Ashford, Faversham and Margate. The attendances at these clinics have been satisfactory, and they have not only attracted fresh patients, but they have relieved the congestion at some of the other clinics.

V.D. Clinics are now established in all the main centres and districts in Kent with the exception of Maidstone. Evening sessions are held at all the clinics so the question of distance or loss of work need not deter patients from attending. These two aspects of the question, clinic within easy reach of the patient and evening sessions, are important, for if patients find the time and place of the clinic inconvenient they cease to attend when their immediate symptoms have been alleviated and while still able to transmit infection. If this occurs the money spent on treating them is wasted from a public health standpoint. In Kent this has been met and clinics are now available within easy reach of nearly every district.

Facilities for the intermediate treatment of gonorrhœa by irrigation are now available at all the clinics except Canterbury, Faversham, Gravesend and Tunbridge Wells. In two of these cases this is due to the inability to obtain suitable male attendants, and in the other cases to lack of accommodation. It is hoped that all these difficulties will soon be overcome.

A considerable proportion of the cases seen at the clinics have been sent there by their own doctors, and several practitioners have written or called at the clinics for suggestions in the treatment of other cases. This shows that the clinics are welcomed by the majority of the practitioners.

The individual attendance of patients is, on the whole, good, but too large a proportion of cases are content with a course of treatment and do not continue to attend till they have satisfied the tests of cure. While this is to be deprecated, as these patients may develop late manifestations of the disease, still a large proportion of them are rendered non-infective and do not transmit the disease to others.

Added experience has shown that a more extensive course of salvarsan, than was originally considered necessary, is needed for the treatment of syphilis. Therefore the course of injections as recommended by Col. Harrison is given in the majority of the Kent clinics. This course consists of ten injections of salvarsan, combined with mercury, and is repeated two or three times, depending on the stage of the disease at which treatment is commenced.

SCHOOL CLOSURES.

The following tabulation sets out the number of school closures in the non-autonomous areas of the county during 1920 on account of the preva-

lence of infectious diseases, and shows the different diseases which called for that step, together with the duration of the closure :—

Reason for Closure.	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	4-5 weeks	5-6 weeks	6 weeks & over	Total
Measles	2	12	28	38	4	1	—	85
Whooping Cough	—	3	5	11	2	—	1	22
Scarlet Fever ..	2	2	1	—	—	—	—	5
Diphtheria	1	5	1	—	—	—	—	7
Measles, Mumps and Chicken Pox	—	—	—	1	—	—	—	1
Measles and Mumps ..	—	—	1	—	—	—	—	1
Measles and Whooping Cough	—	—	2	4	—	—	—	6
Measles, Whooping Cough and Influenza	—	—	—	1	—	—	—	1
Scarlet Fever and Diphtheria	—	1	—	—	—	—	—	1
Totals	5	23	38	55	6	1	1	129
Totals for 1919	1	16	24	12	2	—	—	55

As in 1919, the chief contributing disease was measles.

Arrangements are in force whereby head teachers in the elementary schools of the Kent Education Committee, notify immediately to the local medical officer of health and to myself, cases or suspected cases of infectious and contagious ailments. Reciprocal information is supplied by many medical officers of health and intimations of freedom from infection are also sent to head teachers.

Immediately there appears to be danger of a disease spreading among the scholars at any school a supply of precautionary notices is forwarded to the head teacher for general distribution in the school.

BACTERIOLOGICAL LABORATORIES.

The year 1920 was a very successful one, as regards the work of the county bacteriological laboratory at Maidstone. It will be seen from Table 20 that the number of specimens examined has grown in a remarkable fashion—from 4,992 in 1912, when the laboratory was first opened, to no less than 16,914 in the year under review. I am pleased to record this increase in work which is of such great importance to the public health of the county, and the general medical practitioners throughout Kent appreciate very highly the facilities offered for the examination of specimens.

TABLE 19.—Analysis of Work carried out in the County Bacteriological Laboratory.

DISTRICT.	DIPHTHERIA.				TYPHOID FEVER.			PHTHISIS.			RINGWORM. Number of Examinations.	WATERS. Number of Examinations.	VARIOUS. Number of Examinations.	TOTAL Number of Examinations.		
	Number of examinations made.				Number of Notifications.	Number of Examinations per Notification.	Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.							
	Acute Stage.	Convalescent Stage.	Contacts.	Total.	Number of Notifications.	Number of Examinations per Notification.	Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.							
Number of Doctors sending in Specimens.																
URBAN.																
Ashford ...	11	57	2	52	111	38	3.0	0	—	—	70	18	3.9	29	9	219
Beckenham ...	8	2	1	1	4	59	0.1	1	0.1	0.1	4	38	0.2	0	0	9
Bexley ...	11	57	8	16	81	51	1.6	1	—	—	18	21	0.9	21	1	122
Broadstairs ...	10	56	25	353	434	62	7.0	1	1.0	1.0	31	37	0.9	7	22	498
Bromley (Borough)	20	121	81	106	308	106	3.0	2	2.0	2.0	106	35	3.1	6	7	429
Chatham (Borough)	18	207	87	230	524	261	2.1	12	1.1	1.1	118	58	2.1	28	18	700
Cheriton ...	6	3	0	0	3	5	0.6	0	—	—	24	4	6.0	10	1	38
Chislehurst ...	11	37	24	55	116	29	4.0	0	—	—	12	8	1.5	1	1	132
Crayford ...	5	6	1	300	307	*	*	0	*	*	2	*	*	0	0	309
Dartford ...	11	54	211	1297	1562	199	7.9	1	0.2	0.2	26	26	1.0	11	11	1615
Deal (Borough) ..	5	3	0	2	5	2	2.5	3	3.0	3.0	54	30	1.8	4	2	68
Dover (Borough)	17	80	33	174	287	134	2.2	6	1.5	1.5	194	87	2.3	29	20	536
Erith ...	15	84	2	15	101	95	1.1	2	0.7	0.7	65	47	1.4	5	1	174
Faversham (Borough)	5	16	0	1	17	19	0.9	9	1.5	1.5	29	29	1.0	1	2	53
Folkestone (Borough)	19	164	46	146	356	45	8.0	8	1.6	1.6	169	84	2.1	38	23	594
Footscray ...	10	75	15	54	144	49	3.0	1	—	—	19	13	1.5	1	6	171
Gillingham (Borough)	19	128	28	8	164	116	1.5	6	6.0	6.0	108	43	2.6	4	2	284
Gravesend (Borough)	14	167	20	52	239	62	3.9	2	0.3	0.3	87	21	4.2	20	4	352
Herne Bay ...	7	25	1	2	28	10	2.8	2	1.0	1.0	20	27	0.8	44	2	96
Hythe (Borough)	10	36	18	0	54	11	5.0	1	—	—	34	18	1.9	0	6	97
Lydd (Borough)	1	0	0	0	0	—	—	0	—	—	4	3	1.4	0	0	4
Maidstone (Borough)	15	86	3	214	303	37	8.2	13	4.4	4.4	90	39	2.4	106	218	730
Margate (Borough)	14	69	26	86	181	75	2.5	5	2.5	2.5	50	92	0.6	74	3	313

*Notifications of infectious disease in Crayford Urban were included in the figures for Dartford Rural up to the end of 1920.

Milton Regis	5	14	3	20	37	14	2.7	0	1	0.0	18	9	2.0	0	0	0	55
New Romney (Borough) ...	3	1	0	0	1	—	—	0	—	—	7	3	2.4	0	0	0	10
Northfleet	2	4	7	2	13	80	0.2	0	3	—	14	13	1.1	0	0	0	66
Penge	15	26	48	23	97	52	1.9	1	2	0.5	28	20	1.4	1	0	0	132
Queenborough (Borough)...	4	54	47	67	168	14	12.0	0	1	0.0	13	4	3.3	2	0	0	184
Ramsgate (Borough) ...	7	3	0	3	6	35	0.2	2	3	0.7	23	114	0.3	2	0	0	33
Rochester City	19	36	7	10	53	54	1.0	3	3	1.0	66	16	4.2	2	25	0	158
Sandgate	4	2	0	0	2	3	0.7	0	—	—	4	5	0.8	0	0	0	6
Sandwich (Borough) ...	3	3	0	0	3	—	—	0	—	—	13	3	4.4	4	1	0	21
Sevenoaks	11	14	0	13	27	4	6.8	4	1	4.0	15	—	—	5	0	0	92
Sheerness	6	20	1	32	53	9	6.0	4	6	0.7	36	26	1.4	10	0	0	227
Sittingbourne	9	104	19	88	211	37	5.8	5	3	1.7	56	12	4.7	5	1	0	279
Southborough	7	23	2	14	39	7	5.6	3	—	—	13	8	1.7	5	0	0	61
Tenterden (Borough) ...	3	2	1	1	4	1	4.0	0	1	0.0	7	—	—	0	0	0	11
Tonbridge	12	26	6	6	38	19	2.0	3	1	3.0	55	19	2.9	7	3	0	124
Tunbridge Wells (Borough)	8	10	2	0	12	64	0.2	11	4	2.8	90	42	2.2	33	0	0	146
Walmer	6	2	0	0	2	—	—	0	—	—	10	6	1.7	0	0	0	15
Whitstable	6	*14	17	13	44	5	8.8	2	1	2.0	47	27	1.8	0	0	0	118
Wrotham	2	2	0	0	2	—	—	0	—	—	5	5	1.0	0	0	0	10
Total in Urban Districts...	—	1893	792	3456	6141	1863	3.2	114	94	1.3	1854	1110	1.7	44	706	437	9296
RURAL.																	
Ashford, East	14	27	5	2	34	15	2.3	0	—	—	38	19	2.0	0	4	3	79
Ashford, West	12	19	11	85	115	19	6.1	3	2	1.5	21	10	2.1	0	1	1	141
Blean	7	9	0	0	9	5	1.8	0	—	—	13	10	1.3	0	1	0	23
Bridge	8	14	0	2	16	20	0.8	1	—	—	50	23	2.2	0	13	40	120
Bromley	15	21	7	361	389	77	5.1	2	3	0.7	36	28	1.3	2	38	2	467
Cranbrook	13	18	4	3	25	4	6.3	10	1	10.0	25	17	1.5	9	23	9	93
Dartford	24	48	17	602	667	153	6.4*	0	1	—	35	34	1.1	2	21	2	725
Dover	10	9	0	1	10	5	2.0	0	—	—	21	9	2.4	0	13	0	44
Eastry	8	17	8	2	27	7	3.9	5	1	5.0	31	23	1.4	1	15	1	82
Elham	6	9	1	4	14	9	1.6	0	—	—	15	10	1.5	1	20	1	50
Faversham	8	23	4	1	28	5	5.6	5	5	1.0	19	29	0.7	6	1	6	59
Hollingbourn	15	23	3	40	66	19	3.5	8	3	2.7	147	14	10.5	28	0	28	249
Hoo	1	0	1	0	1	3	0.4	1	—	—	0	—	—	0	0	0	2
Maidstone	16	23	2	6	31	17	1.9	4	3	1.4	44	12	3.7	13	13	1	106

(Continued.) *This rate includes the 307 examinations for Crayford, which was only constituted an Urban District towards the end of the year.

TABLE 19 (continued).—Analysis of Work carried out in the County Bacteriological Laboratory.

DISTRICT.	Number of Doctors sending in Specimens.	DIPHTHERIA.				TYPHOID FEVER.			PHTHISIS.			RINGWORM. Number of Examinations.	WATERS. Number of Examinations.	VARIOUS. Number of Examinations.	TOTAL Number of Examinations.
		Number of examinations made.				Number of Notifications.	Number of Examinations per Notification.	Number of Examinations.	Number of Notifications.	Number of Examinations per Notification.					
		Acute Stage.	Convalescent Stage.	Contacts.	Total.										

RURAL (continued).																
Malling ...	12	60	7	17	84	29	2.9	2	2.0	79	31	3.6	56	0	45	266
Milton ...	11	38	0	66	104	45	2.4	1	—	28	14	2.0	0	0	0	133
Romney Marsh ...	4	3	0	0	3	1	3.0	0	—	9	3	3.0	0	0	3	15
Sevenoaks ...	16	53	20	121	194	31	6.3	6	3.0	40	24	1.7	18	0	20	278
Sheppey ...	5	6	2	2	10	2	5.0	0	—	7	3	2.4	0	0	0	17
Strood ...	16	12	0	84	96	26	3.7	3	3.0	21	16	1.4	25	0	0	145
Tenterden ...	7	4	0	0	4	—	—	0	—	12	6	2.0	4	0	0	20
Thanet ...	9	15	5	12	32	13	2.5	1	0.2	27	27	1.0	30	0	3	93
Tonbridge ...	15	23	2	6	31	23	1.4	1	0.3	62	17	3.7	6	0	6	106
Total Rural Districts ...	—	474	99	1417	1990	528	4.4	53	1.7	780	379	2.1	302	5	183	3313
Total Urban Districts ..	—	1893	792	3456	6141	1863	3.2	114	1.3	1854	1110	1.7	706	44	437	9296
Total Rural Districts ...	—	474	99	1417	1990	528	4.4	53	1.7	780	379	2.1	302	5	183	3313
Total Urban District Hospitals (see below)	—	204	1452	7	1663	—	—	12	—	0	—	..	0	0	20	1695
Total Rural District Hospitals (see below)	—	41	489	2	532	—	—	3	—	0	—	..	0	0	1	536
Total Combined Hospitals ... (see below)	—	21	2029	5	2055	—	—	7	—	0	—	—	0	0	12	2074
GRAND TOTAL ...	—	2633	4861	4887	12381	2391	5.2	189	1.5	2634	1489	1.8	1008	49	653	16914

(Table 19 continued.)

HOSPITALS.

HOSPITAL.	Number of Examinations made.					HOSPITAL.	Number of Examinations made.					Total Number of Examinations.	
	Diphtheria.						Diphtheria.						
	Acute Stage.	Convalescent Stage.	Contacts.	Total.	Typhoid Fever.		Various.	Acute Stage.	Convalescent Stage.	Contacts.	Total.	Typhoid Fever.	Various.
URBAN.													
Ashtord	2	107	0	109	0	...	0	109	0	...	0	10	
Bexley	0	0	0	0	0	...	6	0	0	...	0	15	
Cheriton	0	0	0	0	0	...	0	0	0	...	0	0	
Dover	151	414	0	565	5	...	1	576	1	...	1	2	
Erith...	15	267	0	282	0	...	1	283	0	...	0	61	
Faversham	4	40	0	44	3	...	1	48	0	...	0	39	
Folkestone	24	168	7	199	4	...	2	215	0	...	0	0	
Gillingham	2	215	0	217	0	...	4	217	2	...	0	45	
Gravesend	0	26	0	26	0	...	0	26	0	...	0	141	
Herne Bay	0	15	0	15	0	...	0	15	0	...	0	0	
Lydd...	0	0	0	0	0	...	6	85	0	...	1	94	
Maidstone	5	131	0	136	0	Totals in Rural District Hospitals ...	41	489	2	532	3	536	
Sevenoaks	0	2	0	2	0	...							
Southborough	0	18	0	18	0	COMBINED HOSPITALS.							
Tonbridge	1	41	0	42	0	Bromley and Beckenham Joint Hospital ...	5	99	0	104	0	105	
Tunbridge Wells	0	8	0	8	0	Keycol Hill Hospital,	7	196	2	205	6	222	
Wrotham	0	0	0	0	0	Bobbing ...	1	226	1	228	0	228	
Totals in Urban District Hospitals ...	204	1452	7	1663	12	Isle of Thanet Joint Hospital							
						St. William's Hospital,	2	75	2	79	1	80	
RURAL.						Rochester ...							
Ashford, East	11	38	0	49	0	Deal and Walmer Joint	0	0	0	0	0	0	
Ashford, West	2	10	0	12	0	Hospital ...	6	1433	0	1439	0	1439	
Blean	0	16	0	16	0	Dartford Joint Hospital ...							
Bridge	0	27	0	27	0	Totals in Combined Hospitals	21	2029	5	2055	7	2074	
Cranbrook	0	0	0	0	0								
Eastry	8	16	0	24	0								

It is interesting to note that, in reply to a question as to whether the fullest possible use was being made of these facilities, all but the following districts gave a positive reply:—Bexley, Chatham, Gravesend, Rochester and Malling Rural.

Reference to Table 20 shows that practically every group of specimens shared in the increase, but the figures showing the number of specimens examined *per case notified* are of special interest.

From its inauguration steps have been taken to popularise this branch of the public health administration, and I have indicated in the past the advantages which are gained through the attachment of a bacteriological laboratory to the county health department.

The results of the preventive work carried out by such a department, important and far-reaching as they are, can rarely, if ever, be shown in actual figures. Quite apart from the saving of life, however, it is pleasing to be able to record a distinct economic gain by conducting the work in a county laboratory, as compared with the cost which would have been incurred if the same work had been carried out at a private laboratory. Although this aspect is one of secondary importance, it yet remains worthy of consideration in the circumstances of the present time.

As an instance of the wide scope of the laboratory's utility, I would direct attention to the number of "various" examinations. These examinations are specially deserving of notice. They are quite apart from the "routine" examinations—a fact of some importance in a busy laboratory—and it will be seen that they represent a very large amount of work for that reason alone. Their significance, however, lies in the evidence they offer of the tendency, growing greater year by year, for the general medical practitioner to refer to the county laboratory in cases which are outside the ordinary routine, or in which there is some element of doubt. The growth of these examinations—from 66 in 1912 to 653 in the year under review—is particularly pleasing, for they offer in themselves the finest testimonial to the value of the laboratory to the medical profession in the county.

The preparation of autogenous vaccines is an item which is of interest, and it will be noticed that in forty-nine instances these vaccines were prepared. In only a few odd cases had this work been done in previous years, and it is gratifying to realise that here again the laboratory is proving itself to be of great assistance to the health of the community.

The influence of the War can still be traced in some items of the work of the laboratory, *e.g.*, the examination of blood films in suspected cases of malaria;

TABLE 20.—Showing the numbers of specimens of each kind sent to the Laboratory for examination from the **Urban** and **Rural Districts** during the years 1912, 1918, 1919 and 1920.

Districts.	Diphtheria.				Typhoid Fever.				Phthisis.			
	1912. (First Year.)	1918.	1919.	1920.	1912. (First Year.)	1918.	1919.	1920.	1912. (First Year.)	1918.	1919.	1920.
Urban	2526 (1·8)	5484 (4·1)	4457 (4·0)	7804 (4·2)	290 (1·1)	112 (1·2)	84 (1·4)	126 (1·4)	295 (0·2)	1317 (1·2)	1485 (1·5)	1854 (1·7)
Rural.....	785 (1·6)	1968 (3·2)	2453 (5·5)	2522 (4·8)	44 (0·6)	28 (1·0)	22 (1·6)	56 (1·8)	70 (0·1)	469 (0·9)	550 (1·4)	780 (2·1)
Total (including Combined Hospitals.)	3487 (1·8)	7896 (5·1)	8037 (5·1)	12381 (5·2)	335 (1·0)	148 (1·3)	109 (1·5)	189 (1·5)	365 (0·2)	1786 (1·1)	2035 (1·4)	2634 (1·8)

Districts.	Ringworm.				Water.				Various.				Grand Total.				Milk.	
	1912. (First Year.)	1918.	1919.	1920.	1912. (First Year.)	1918.	1919.	1920.	1912. (First Year.)	1918.	1919.	1920.	1912. (First Year.)	1918.	1919.	1920.	1914.	1915, 1916, 1917, 1918, 1919 & 1920.
Urban	517	524	556	706	41	45	56	44	59	455	281	457	3858	7937	6919	10991	44	Tuberculosis Order suspended.
Rural.....	168	205	362	302	13	4	2	5	7	61	73	184	1087	2735	3462	3849		
Total (including Combined Hospitals.)	685	721	918	1008	51	49	58	49	66	518	361	653	4992	11126	11518	16914		

NOTE.—The figures in brackets show the numbers of specimens examined per case notified.

TABLE 21.—Details of various specimens examined at the County Laboratory during 1920 :—

(i.) SPECIMENS IN CONNECTION WITH INFECTIOUS DISEASES.	
Examinations of blood films (?) malaria	134
Examinations of faeces (?) <i>B. Typhosus</i>	41
Examinations of serum (?) <i>B. Para-typhosus</i>	36
Examinations of faeces (?) <i>B. Dysenteriae</i>	27
Examinations of urine (?) <i>B. Typhosus</i>	20
Examinations of urine (?) tubercle bacilli, <i>B. Coli</i> and organisms	20
Examinations of milk (?) tubercle bacilli	13
Testing virulence of <i>B. Diphtheriae</i>	9
Examinations of cerebro-spinal fluid (?) meningococcus	8
Examinations of blood film (?) malaria and differential count	5
Examinations of swabs (?) meningococcus	5
Examinations of serum (?) <i>B. Dysenteriae</i>	4
Examinations of milk (?) <i>B. Typhosus</i>	3
Examinations of sputum (?) tubercle bacilli, actinomycosis and organisms	2
Examinations of pus (?) tubercle bacilli	2
Examinations of faeces (?) <i>B. Typhosus</i> and <i>B. Para-typhosus</i>	2
Examination of blood (?) plague	1
Examination of empyema fluid (?) tubercle bacilli, streptococci and pneumococci	1
Examination of pleuritic fluid (?) tubercle bacilli.....	1
Examination of cerebro-spinal fluid (?) tubercle bacilli	1
Examination of faeces (?) tubercle bacilli and <i>B. Dysenteriae</i>	1
Examination of faeces (?) tubercle bacilli.....	1
	337
(ii.) SPECIMENS IN CONNECTION WITH NON-INFECTIOUS DISEASES.	
Histological examinations of tissues	55
Preparation of autogenous vaccines	49
Examinations of blood films—differential count, &c.	41
Bacteriological examinations of urine	27
Chemical, &c., „ „ „	20
Microscopical „ „ „	8
Examinations of pus (?) organisms	18
Examinations of Grade A (certified) milk	13
Examinations of swabs (?) organisms	8
Examinations of pleuritic fluid (?) organisms.....	7
Examinations of cerebro-spinal fluid (?) organisms	7
Examinations of sputum (?) organisms	3
Examinations of blood cultures (?) organisms	3
Examinations of milk (?) organisms.....	3
Examinations of swabs (?) Vincent's Angina	2
Examinations of swabs (?) streptococci	2
Examinations of pus (?) actinomycosis	2
Examinations of mussels (?) <i>B. Coli</i> and <i>B. Enteritidis sporogenes</i>	2
Examinations of cultures (?) organisms	2
Examinations of blood films (?) organisms	2
Examinations of vaginal swabs (?) organisms.....	2
Examinations of faeces (?) organisms	2
Examinations of specimens from teeth (?) organisms	1
Examination of scraping from uterus (?) carcinoma	1
Examination of liver of pig (?) parasites.....	1
Examination of blood film (?) Banti's disease	1
Examination of blood film (?) anemia	1
Examination of blood film (?) cancer cells	1
Examination of swab from cervix (?) streptococci, staphylococci, &c.	1
Examination of pus (?) pyorrhoea alveolaris	1
Examination of vaginal swab (?) spermatozoa	1
Examination of vaginal smear (?) organisms	1
Examination of vaginal culture (?) organisms	1
Examination of fluid from chest (?) organisms	1
Examination of pus (?) nature	1
Examination of pus (?) Vincent's Angina	1
Examination of pus (?) urine.....	1
Examination of scraping from skin (?) lupus and leprosy	1
Test for cocaine (in a case of possession)	1
Examination of mucus (?) organisms	1
Examination of stone (?) nature	1
Examination of scurf from sore (?) parasitic infection	1
Examination of nasal discharge (?) organisms	1
Examination of culinary fat (?) organisms.....	1
Examination of faeces (?) <i>Ankylostoma Duodenale</i>	1
Examination of scraping from sore (?) leishmaniasis.....	1
Examination of scales (?) <i>Sarcoptes scabiei</i>	1
Examination of culture from nose (?) organisms	1
	316
Total	653
Grand Total	

for though indigenous cases of this disease have occurred in Kent, they are rare, and it may be assumed that in practically all of the cases from which specimens were examined, the disease had its origin in some foreign country, during the war service of the patient.

Although dealt with under the heading of Venereal Diseases (see p. 71) the work of examining pathological specimens for the detection of spirochaetes and gonococci, and tests for Wasserman re-action, is yet another branch of activity. Particulars of the work done under this heading are given on page 71, and if the 2,459 specimens there enumerated are added to the 16,914 already mentioned, we find that the total (19,373) easily surpasses all other years since the commencement of the work, the previous record being the 13,034 examinations during 1919.

To a large extent, the work in the laboratory has been handicapped for some time past by the congested space in which it is performed. When the present accommodation was designed, it was not realised that the work would develop to the extent that it has done—both in the number of specimens examined and the variety of the work undertaken. With such a steady increase in all directions, it is easy to see the extra work necessitated by limited accommodation, and the liability to error through the same cause, and I am glad to say that the recent re-arrangement of the occupation of rooms in the Sessions House will allow for a transference of the laboratory to much better rooms, allowing much greater bench space, and an improved accommodation for clerical work. The necessary alterations and adaptations are well in hand at the time of writing.

The following specimens were examined for the County Borough of Canterbury :—

Swabs for diphtheria.....	23
Sputum for tubercle bacilli ...	73
Water	1
Various	2
	—
Total	99
	—

No doses of tuberculin were prepared during the year.

ADMINISTRATION OF THE MIDWIVES ACTS, 1902-1918.

The two whole-time inspectors of midwives, Miss Harrison and Miss Berry, have continued to carry out their duties in a praiseworthy manner. All midwives are visited periodically, and special visits are paid to those who report cases of inflammation of the eyes or puerperal fever, or have been in contact with infection. Every effort is made to educate those women who are

certified, but who have not been trained, and those recently trained who have little experience.

TABLE 22.—SHEWING THE NUMBER OF MIDWIVES PRACTISING IN THE COUNTY OF KENT IN EACH SANITARY AREA AT THE END OF 1920.

District.	Trained.	Bonâ-fide.	District.	Trained.	Bonâ-fide.
Urban.					
Ashford	2	—	Margate	4	—
Beckenham	2	—	Milton Regis	—	1
Bexley	5	1	New Romney	—	—
Broadstairs and St. Peter's	2	—	Northfleet	1	3
Bromley	9	—	Penge	3	1
Chatham	5	4	Queenborough	—	1
Cheriton	3	—	Ramsgate	8	—
Chislehurst	—	1	Rochester	9	2
Dartford	5	—	Sandgate	1	—
Deal	2	1	Sandwich	2	—
Dover	6	—	Sevenoaks	5	2
Erith	5	—	Sheerness	2	1
Faversham	4	1	Sittingbourne	2	—
Folkestone	2	1	Southborough	2	—
Footscray	4	—	Tenterden	1	—
Gillingham	11	1	Tonbridge	2	3
Gravesend	1	1	Tunbridge Wells	5	3
Herne Bay	—	—	Walmer	—	1
Hythe	—	—	Whitstable	2	—
Lydd	1	—	Wrotham	2	1
Maidstone	7	2		127	32
Rural.					
Ashford, East	6	3	Milton	2	—
Ashford, West	1	—	Romney Marsh	—	—
Blean	3	2	Sevenoaks	16	2
Bridge	4	3	Sheppey	1	—
Bromley	11	2	Strood	6	2
Cranbrook	1	—	Tenterden	1	1
Dartford	14	3	Thanet	2	—
Dover	2	2	Tonbridge	10	—
Eastry	4	—			
Elham	1	—	Rural	110	33
Faversham	6	—	Urban	127	32
Hollingbourn	2	—			
Hoo	2	—	Total	237	65
Maidstone	8	2			
Malling	7	11			302

Table showing the various details respecting the number of midwives, notifications received, &c., during the ten years 1911-1920 :—

Number of Midwives, &c :—

	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920.		
										North and West. Miss Harrison.	South and East. Miss Berry.	Total.
Number of Midwives prac- tising in the County on January 1st	341	332	340	334	386	347	290	263	286	186	108	294
Removed during year ..	34	38	33	27	40	45	43	23	32	38	24	62
Died ..	1	4	4	4	4	7	4	2	3	5	1	6
Resigned ..	11	0	3	6	5	13	17	9	7	4	1	5
Certificates cancelled ditto	6	5	5	8	4	4	1	—	1	—	—	—
Number of additional Mid- wives who notified their intention to practise in the County	43	55	39	97	14	12	38	57	51	50	31	81
Number of Midwives Prac- tising on December 31st	332	340	334	386	347	290	263	286	294	189	113	302*
Number of letters for- warded by County Medical Officer to Midwives draw- ing attention to breaches of the Rules	—	19	27	25	15	12	11	4	8	2	8	10
Number of cases censured and cautioned by the Cen- tral Midwives Board to strictly observe the Rules	1	—	—	—	2	—	—	—	—	—	—	—
Number of midwives pro- secuted for not notifying their intention to practise	—	1	—	1	—	—	—	—	—	—	—	—
Uncertified women prose- cuted for practising as midwives, etc.	13	7	3	8	1	—	—	—	—	—	—	—

Number of Notifications, &c. :—

Stillbirths ..	..	235	249	224	251	206	221	180	196	210	134	128	262
Deaths {	Mother ..	5	2	5	—	2	1	3	7	3	—	1	1
	Child ..	47	37	31	24	27	22	15	18	24	12	14	26
Medical Help {	Mother ..	556	659	679	715	642	672	696	610	882	606	510	1116
	Child	254	304	351	439	279	389	400	351	451	250	269	519
Notifications of having laid out a dead body		28	77	83	86	68	66	45	31	53	26	13	39
Notifications of liability to be a source of infection		—	—	—	—	—	8	14	25	20	18	11	29
Notifications of having ad- vised artificial feeding		—	—	—	—	—	—	—	—	41	62	48	110

*Of these midwives 237 were trained and 65 were *bonâ fide* as compared with 115 trained and 225 *bonâ fide* in 1909.

SUMMARY OF REASONS OF SENDING FOR MEDICAL HELP (1920) :—

For the mother :—

	North and West Kent.	South and East Kent.	Whole County.
Abnormal Presentation	82	42	124
Abnormal labour (? obstructed)...	113	50	163
Abortion	31	19	50
Ante-partum hæmorrhage	23	23	46
Delayed labour	67	75	142
Post-partum hæmorrhage	18	16	34
Rise of temperature.....	39	38	77
Retained placenta	40	32	72
Torn perineum.....	123	146	269
Miscellaneous	56	69	125
Ante-Natal	14	—	14
Total	606	510	1116

For the child :—

Prematurity and feebleness	90	89	179
Deformities	23	27	50
Inflammation of the eyes	105	77	182
Skin eruptions	5	10	15
Miscellaneous.....	27	66	93
Total	250	269	519

The majority of the resignations during the year have been due to old age and inability to comply with the rules of the Central Midwives Board.

It will be observed that there was again a total increase of eight practising midwives during the year, but it is increasingly difficult to obtain the services of midwives, notwithstanding the facilities afforded by the schemes set out on pages 84 and 85.

PUERPERAL FEVER.—During the year under review fifty-two cases of puerperal fever were notified ; of this number twenty-two were attended, in the first place, by midwives alone, and thirty by doctors. In one of these latter a midwife acted in the capacity of maternity nurse.

OPHTHALMIA NEONATORUM.—It will be seen from tables 5 and 6 that 121 cases of ophthalmia neonatorum occurred during 1920. Those cases occurring in the practice of midwives are investigated in the ordinary course by the inspectors of midwives.

As stated in my annual report for 1919, midwives, with a view to the prevention of this disease, were supplied with a preparation to be applied to

the eyes of *each* child delivered immediately after birth. It is interesting to note that forty-four cases were attended by midwives during the last six months of 1920, whereas only twenty-seven cases were attended during the first six months of 1921.

AMOUNT OF WORK CARRIED OUT BY MIDWIVES.—From enquiries made from each midwife, it has been ascertained that 11,372 births were attended by midwives alone out of a total number of 22,543 births registered in the administrative County of Kent during the year 1920.

165 midwives attended 25 cases or less.			
60	„	„	26 to 50 cases.
27	„	„	51 to 75 „
15	„	„	76 to 100 „
18	„	„	101 to 125 „
7	„	„	126 to 150 „
7	„	„	151 to 175 „
14	„	„	176 cases upwards.

In very few of the rural areas are there sufficient cases to enable a midwife to earn a livelihood without assistance, and the majority of rural midwives are either married women or they also act as local district nurses under a nursing association, or come under the scheme shewn on page 84.

VISITS PAID BY INSPECTORS.—The following is a summary of the visits made by the inspectors in each district :—

	DISTRICTS.		TOTAL.
	North-West.	South-East.	
Total visits paid by inspectors	799	700	1499
Inspections of midwives and unregistered women—			
Bonâ-fide women	145	68	213
Trained women	284	301	585
Unregistered women	6	1	7

The difference between the number of *visits* and the number of *inspections* is accounted for by special visits, e.g., to patients who have been attended by unsatisfactory midwives or uncertified women ; *re* disinfection, high temperature, inflammation of the eyes, puerperal fever, etc. ; or attendance at Court and at the Penal Committee meetings of the Central Midwives Board ; interviews with midwifery scholarship candidates and persons interested, in various ways, in the administration of the Midwives Act.

MIDWIVES ACT, 1918.—The Ministry of Health in a circular dated 24th December, 1920, revised the scale of fees prescribed for the payment by the local supervising authority of medical practitioners called in by midwives under Section 14 of the Midwives Act, 1918. This scale, which came into operation on 1st January, 1921, has been more generally accepted by the doctors in Kent, and has resulted in a large increase in the number of claims made against the County Council by the practitioners. The investigation of the circumstances of patients who plead inability to refund the fee paid to the doctors by the County Council adds considerably to the work of the inspectors of midwives.

PROVISION OF MIDWIFERY FACILITIES.—Early in 1917 the Kent County Council decided to establish a number of “subsidised” midwives in areas where the service was inadequate or where it was not possible for one to earn a livelihood without assistance. There are many such areas in Kent with small or scattered populations.

The minimum guaranteed income is £100 per annum, and the annual subsidies payable by the County Council vary from £40 to £70, according to the number of confinements which it is expected that the midwife will be able to undertake. In addition, school nursing work is included among the duties of some of these midwives. At the time of writing the following districts have been provided for in this manner:—Northumberland Heath (Erith), Tenterden and neighbourhood, Yalding and Hunton, Hoo and High Halstow, Footscray, Hadlow and district, and Halling and district. Loose, Linton and part of Farleigh have been provided for by making the midwife a small grant.

Great difficulty is still experienced in obtaining either a house or unfurnished rooms for subsidised midwives, and a number of appointments have again fallen through owing to this reason.

TRAINING OF MIDWIVES.—As stated in my last annual report, the Kent Education Committee will set aside each year from six to ten scholarships for the training of midwives for candidates on my nomination. Under this arrangement candidates are given a course of six months (four months when the candidate possesses a hospital certificate for general training) training at an approved institution, or with an approved teacher, together with board, lodging, laundry, and one examination fee, free of cost to the candidate. For this the candidate has to enter into an agreement to serve as a midwife in Kent for three years in a district where there is a need of a midwife. If the midwife ceases to practise without the consent of the Council the fees paid by the Education Committee have to be refunded in proportion to time served. Great difficulty has been experienced in obtaining suitable candidates for this purpose, and also in finding vacancies at institutions or with approved teachers. Three candidates have now passed the examination of the Central

Midwives Board, and two have been placed in districts where there is an urgent need. Other candidates are in the course of training.

The Kent County Nursing Association have continued to display great activity in the establishment of midwives for areas where there is a shortage, and the County Council have assisted that association in the formation of new local nursing associations for this purpose, by means of grants varying from £20 to £50 per annum to meet the estimated deficit for the year, with a promise of future grants based on the annual balance sheet if such grants should be needed. These associations also undertake general district nursing, but it is understood that the midwifery work shall receive primary consideration. Under this arrangement, nurses who are qualified midwives are now working in the undermentioned districts, or nursing associations are in process of formation :—

	Grant. £
Stoke, St. Mary Hoo, Grain, All Hallows, and High Halstow ..	20
Harbledown, Rough Common, Blean, St. Dunstons Without, Hackington, and Tyler Hill	25
Ash, near Canterbury, and West Marsh	35
Waldershare, Coldred, Whitfield, East Langdon, and West Langdon...	15
Sutton Valence, East Sutton, and Chart Sutton ..	20
Mereworth and West Peckham	45
West Malling, Leybourne, Offham, Ryarsh, and Addington	40
Leigh	35
Capel-cum-Tudeley	40
Downe	50
Longfield	50
St. Nicholas-at-Wade	50
Shorne, Chalk and Higham...	50
Otford, Kemsing and Shoreham	50
Ivy Hatch and District	50
Warehorne and Appledore	30
Shepherdswell, Eythorne, Bartfreston and Nonington	40
Woodchurch, High Halden and Shadoxhurst	50
Ospringe, Luddenham, Stone and Buckland, and possibly Oare and Davington or part of Faversham Without and South Preston	50
Rodmersham, Tonge, Milstead and Kingsdown, and possibly Frinsted and Wormshill	50
Sturry, Westbere and Fordwich	40
Smarden and Biddenden	40
Cranbrook	50

MATERNITY AND CHILD WELFARE.

HEALTH VISITING.—The population of the area covered by the county maternity and child welfare scheme during 1920 was 356,155. As from April 1st, 1920, the duties of all the whole-time nurses on the County Medical Officer's Staff were combined to include health visiting (where undertaken by the County Council), school nursing and tuberculosis visiting. This has resulted in the prevention of overlapping by the different nurses, and in addition it gives them wider professional interest in their work. The aggregate number of days per week devoted to child welfare work under this arrangement is equivalent to the time of 12·05 whole-time nurses. Table 23

shows the work of the health visitors in home visiting during the year under review.

In addition to giving advice to mothers, the services of the nurses are available for the home visiting of measles during outbreaks of this disease, and for the visitation of the children of widows of ex-service men placed with foster parents.

As from August 12th, 1920, the Notification of Births Act, 1907, became operative in certain districts in Kent, as though such Act had been adopted by the County Council instead of by the local district councils. See page 12.

MATERNITY AND CHILD WELFARE CENTRES.—Table 24 shows the maternity and child welfare centres coming within the administration of the Kent County Council. Those taken over or established during 1920 are indicated by the date being given in the first column. In addition, new centres have been established at Tenterden, Hollingbourn and Farnborough in 1921.

The educational and social side of the work is developed mainly by voluntary committees with the help of health visitors.

The only centre at which dental work is carried out is Westerham, where the services of a local dentist are available as required.

NURSING OF MEASLES, WHOOPING COUGH, DIARRHŒA AND POLIOMYELITIS.—An arrangement has been made whereby the services of a nurse from the Kent County Nursing Association shall be available for home nursing, where necessary, in cases of the above diseases. The services of the health visitors are also available for the home visiting of measles, &c. The local medical officers of health have been informed of the facilities but no applications have been received for the help of the nurses in these directions.

PROVISION OF BEDS FOR COMPLICATED CONFINEMENT CASES OR CASES WHERE THE HOME CONDITIONS ARE UNSUITABLE FOR CONFINEMENT.—Provisional arrangements have been entered into with four maternity homes, eight hospitals and six midwives, for the reception of confinement cases as above on the recommendation of the County Medical Officer. These arrangements have, however, remained in abeyance until such time as the Ministry of Health decide that the economic condition of the country will allow them to approve extensions of child welfare schemes in this direction. An arrangement with a maternity home at Whitstable has been approved, but no cases were sent to this institution until early in 1921.

SUPPLY OF MILK TO EXPECTANT AND NURSING MOTHERS.—Recommendations for a free supply of milk are made by the health visitors to the County Medical Officer in all cases in which a grant appears to be necessary by reason of poverty. Full details are obtained as to the circumstances of the household, and the County Council have recently employed an additional safeguard by requiring a statement from the employer as to the income of

TABLE 23.

HEALTH VISITING IN COUNTY AREA DURING 1920.

District.	Present Health Visitor.	Acreage.	Total Population, 1920.	No. of Births, 1920.	No. of Visits paid.			Births attended by			Feeding Methods.				Complaints dealt with.	
					First.	Subsequent and Special.	Fruitless.	Doctor.	Midwife.	Doctor and Midwife.	Breast.	Breast and Hand.	Hand.	Per Cent Breast Fed.	Housing.	Other.
Sheppey R.	Miss Dockrill	21,197	3,921	109	167	380	21	35	132	—	148	3	16	88.62	—	—
Faversham R.	Miss Turnell	29,005	10,018	†359	173	252	69	27	125	21	142	20	11	82.12	5	—
(21 parishes)																
Faversham B.	Miss Taylor	22,366	16,094	†414	291	1,580	123	102	172	17	183	76	32	62.89	—	—
R.																
(5 parishes)																
Blean R.	Miss Worthington	55,834	13,447	†341	273	690	53	41	182	50	203	32	38	74.36	2	8
(2 parishes)																
Bridge R.																
Blean R.	Mrs. Stokes	7,843	20,225	†415	491	2,194	258	285	142	64	188	130	192	34.29	14	16
(6 parishes)																
Herne Bay U.																
Whitstable U.																
Blean R.	Mrs. Morris	22,383	17,571	403	389	1,725	49	237	112	40	307	54	28	78.92	1	3
(3 parishes)																
Broadstairs U.																
Thanet R.	Miss Bailey	43,682	13,946	345	269	1,026	74	19	103	147	189	18	62	70.26	16	3
Eastry R.	Mrs. Smithson	2,102	17,603	417	395	2,084	211	172	165	58	311	8	76	78.73	49	115
Deal U.																
Walmer U.	Miss Harvey	27,121	7,373	169	148	330	—	63	80	5	81	42	25	54.73	23	40
Dover R.	Miss Orpin	38,313	15,068	356	255	1,506	30	45	198	12	225	16	14	88.24	9	—
Cheriton U.																
Elham R.	Miss Hastings	46,860	17,368	388	178	450	79	121	54	3	144	19	15	80.89	5	1
Hythe B.																
New Romney B.																
Lydd B.																
Sandgate B.																
Romney Marsh R.	Miss Hennis	57,670	12,196	279	259	445	39	222	30	7	238	8	13	91.89	22	—
Hollingbourn R.	Miss Blackmore	72,319	15,572	†333	244	261	16	175	49	2	203	6	28	85.65	4	1
Tenterden B.																
Tenterden R.																
Cranbrook R.	Miss Asbery	42,416	15,921	†421	190	566	50	92	72	26	167	6	17	87.89	6	—
(4 parishes)																
Cranbrook R.																
(2 parishes)																
Maidstone R.																
(4 parishes)																
Malling R.	Miss Johnson	17,540	11,257	†306	190	360	87	62	107	21	110	53	27	57.9	4	—
(2 parishes)																
Maidstone R.																
(12 parishes)																
Malling R.																
(2 parishes)																
Malling R.	Miss Miles	7,544	4,804	†145	102	91	23	9	72	21	85	11	6	83.34	15	—
(3 parishes)																
Malling R.																
(13 parishes)																
Strood R.	Miss Wheeler	21,514	13,250	†393	485	814	87	5	299	181	383	40	62	78.97	55	5
(1 parish)																
Tonbridge U.	Miss Workman	1,356	15,541	353	206	940	116	50	139	107	212	59	25	71.63	—	—
Southborough U.	Miss Watt	1,702	7,079	163	184	464	13	6	122	56	169	5	10	91.84	3	2
Wrotham U.		35,989	17,246	†406	303	1,077	114	75	195	33	294	7	2	97.03	—	—
Bromley R. (1 parish)																
Malling R. (1 parish)																
Sevenoaks R.	Miss Barnes	27,687	10,249	†272	309	1,293	278	164	115	30	212	69	28	68.61	9	1
(7 parishes)																
Strood R. (except 2 parishes)	Miss Main	22,687	7,147	†216	151	641	29	33	106	12	98	37	16	64.9	—	—
Hoo R.																
Strood R.	Miss Young	39,490	7,618	157	115	510	—	87	28	—	89	15	11	77.39	—	—
(1 parish)	Nurses Howard and Eke	4,834	17,486	351	207	1,205	27	85	106	16	185	5	17	89.38	—	—
W. Ashford R.																
Chislehurst U.	Local Nurses	68,580	34,471	†807	453	2,292	84	147	250	56	366	17	70	80.79	—	—
Footscray U.																
Bromley R. (except 1 parish)																
Sevenoaks R.	6 Local Nurses	54,800	13,884	333	249	826	42	93	126	30	222	2	25	80.16	—	—
(13 parishes)																
E. Ashford R.																
Totals		791,934	356,155	8,554	6,766	24,002	1,972	2,452	3,281	1,015	5,134	758	867	75.96	242	195

* This district was without a health visitor from October 23rd, 1920, until the appointment of Miss Asbery at the time of writing.

† Estimated.

COUNTY MATERNITY AND CHILD WELFARE CENTRES.

Name of Centre.	Situation of Premises.	Day and time of opening.	Medical Officer.	Nurse.	Attendances during 1920.		Ages of Children.			Feeding Methods.			
					Total.	Average per Opening.	1-3 Months.	3-12 Months.	Over One Year.	Breast.	Breast and Hand.	Hand.	Per centage entirely Breast-fed.
Tonbridge	St. Eanswyth's Hall, Priory Rd.	Each Wednesday at 2 p.m.	Dr. Tucker	Miss Wheeler	1043	24	52	41	15	58	19	31	53·70
Westerham	Moreton Almshouses	Each Tuesday, at 2.30 p.m.	Dr. Russell	Miss Wilson (District Nurse)	466	12	32	6	10	37	4	7	77·08
Cheriton	Oddfellows' Hall	Each Wednesday at 2 p.m.	Dr. Gore	Miss Orpin	2061	39	80	44	65	149	18	22	78·84
Whitstable	Congregational Schools	Each Wednesday at 2 p.m.	Dr. Piper	Mrs. Stokes	1343	26	229	261	300	263	156	371	33·29
Barham	Institute, Derringstone	First Monday each month at 1.30 p.m.	Dr. Henderson	Miss Worthington	18	2	2	4	5	9	2	—	81·82
Deal and Walmer	Masonic Hall	Each Friday at 2.30 p.m.	Dr. White	Mrs. Smithson	2385	50	72	63	22	93	14	50	59·24
Snodland	Devonshire Rooms	Each Wednesday at 2 p.m.	Dr. Cole	Miss Miles	1367	28	68	65	27	82	18	66	51·25
Faversham (22/1/20)	Queen's Hall	Each Friday at 2 p.m.	Dr. Evers	Miss Taylor	1249	27	77	68	34	69	27	83	38·55
Southborough (1/4/20)	Neva Cottage, Pennington Rd	Each Friday at 2.30 p.m.	Dr. Pain	Miss Workman	736	17	41	24	28	44	5	44	47·32
High Brooms (1/4/20)	St. Matthew's Parish Hall	Each Tuesday at 2.30 p.m.	Dr. Neild	Miss Workman	681	14	49	11	15	42	6	27	56·00
Boughton (13/10/20)	Church Hall	Each Wednesday at 2 p.m.	Dr. Kennedy	Miss Taylor	143	13	9	13	22	19	3	22	43·18
Newnham (8/10/20)	Village Hall	Each Friday at 2 p.m.	Dr. Selby	Miss Turnell	82	9	10	11	12	9	14	10	27·27
Teynham (7/10/20)	St. John's Hut	Each Thursday, at 2 p.m.	Dr. Selby	Miss Turnell	150	15	10	26	13	29	20	—	59·18
Chislehurst (10/4/20)	St. Mary's Hall	Each Friday, at 2.30 p.m.	Dr. Hodgson	Nurse Eke	501	13	18	39	16	23	1	20*	52·27
Oudham (18/5/20)	Social Hall, Jail Lane	Every other Thursday at 2.30 p.m.	Dr. Hoffmann	Nurse King (District Nurse)	240	9	6	10	4	13	5	2	65·00
Herne Bay (1/7/20)	Parochial Institute, Underdown Road	Each Monday at 2 p.m.	Dr. Evans	Mrs. Stokes	212	6	25	116	71	53	32	127	25·00
Brasted and Sundridge (13/7/20)	Sundridge Parish Room	1st and 3rd Tuesday in each month, 2 p.m.	Dr. Alexander	Miss Watt	138	12	7	15	14	27	6	3	75·00
Voluntary Centres:— Borough Green	High Street	Each Thursday at 2 p.m.	Dr. Walker	Miss Watt	847	16	15	29	4	37	6	5	77·08
Meopham	Village Hall	First Friday in month, at 2.30 p.m.	Dr. Garrett	Nurse Hewitson	256	11	12	10	30	16	4	32	30·77
					13918	343	814	856	707	1072	360	916	45·66

*Particulars of feeding not known in 29 cases.

the wage-earner. Under the revised arrangements also a grant is only made where a certificate is produced from a doctor certifying a supply as being necessary on grounds of health.

During 1920 1,352 recommendations were granted, involving the free supply of 11,548 gallons of milk and 287 lbs. of Glaxo.

STILLBIRTHS.—Stillbirths are investigated and reported upon by the health visitors. In seventy-nine instances in 1920 the following causes were definitely given :—Injury 21, abnormality 20, shock 9, eclampsia 4, venereal disease 1, various illnesses 24. In fifty-seven instances the cause was stated to be unknown, and a proportion of these would undoubtedly be due to venereal disease.

VARIOUS.—Two places have been reserved by the County Council in the Ramsgate Hostel for unmarried mothers and children. These places have been kept constantly filled.

The observations which I made in my annual report last year as to the value of the work of the health visitors and the work undertaken in the child welfare centres, again apply, and I should like to offer a word of praise both to the health visitors in general, and to the energetic members of voluntary child welfare committees who have contributed in no small measure to the success attained by many of the centres. The fall in the infantile mortality rate which has taken place in recent years has, I am convinced, been contributed to, in great part, by the efforts which have been made towards that end under child welfare schemes.

The following figures show certain infantile mortality rates during 1920 :—

Kent urban districts	61	per 1,000 births.
„ rural districts	53	„
Whole county	58	„
Area of county scheme	51	„
Rest of Kent	62	„
England and Wales	80	„

It must be remembered that, included in the “rest of Kent” are the larger towns in the county, with congested areas, where the infantile mortality rate is naturally higher than in other parts. It is, however, satisfactory to note that the rate for the “area of the county scheme” is below that for the combined rural districts. All the county rates quoted can be regarded as satisfactory.

Co-ordination with the school medical service is ensured by the fact that the health visitors are also responsible for school nursing in their areas, and five of the medical officers of infant welfare centres are also school medical inspectors for the area. The scheme of effective medical supervision of children, from birth to the time they leave school, is being further developed

as opportunities present. The records of the health visitors may be of value in the matter of further co-ordination with the school medical service.

The Ministry of Health's Circulars, &c., respecting maternity and child welfare, issued during 1920, are summarised on pages 11 and 12 of this report.

DISTRICT ADMINISTRATION:—The following particulars relate to the sanitary areas in which the Notification of Births Acts are administered by the local district councils:—

TABLE 25.

	Number of Health Visitors.		Births in 1920.	Visits of Health Visitors, 1920.	Maternity and Child Welfare Centres—Average Attendance of		Total amount of milk granted during year (free or at reduced price).
	Whole-time.	Part-time.			Mothers,	Children	
Ashford.....		1	317	2070	?	12	264½ pints
Beckenham	1	†1	668	4449	4	64	£75
Bexley	2		563	6725	No	centre	£365 10s. 0d.
Bromley	2		755	4112	91	109	£477
Chatham	2	†1	1213	6986	?	50	About 2000 packets of dried milk
Dartford	2		544	6034	93	133	29600 pints
Dover	1		1117	9121	4	48	272 instances
Erith.....	2		813	5441			31728 pints and 1087 packets dried milk
Folkestone	1		724	1633	3	53	5581 pints
Gillingham	1	1	1358	4288	?	78	472 pints
Gravesend.....	1		822	8882	85	150	13883 pints
Maidstone.....	2		866	3112		48	4907 pints
Margate	1		570	2969	58	66	4203 pints
Milton Regis ...		1a	186	607	24	29	812 pints and 315 lbs. dried milk
Northfleet.....	1		451	2168			
Penge	1	1	697	1988	16	54	£308
Queenborough ...		1b	102	3355	30	36	
Ramsgate	1	1	824	2416	30	27	£98 6s. 0d.
Rochester	2		803	8616	No	centre	3813 lbs. dried milk
Sandwich		1	77	1188	30	30	1584 lbs. dried milk
Sevenoaks.....		2	192	316	4	38	97 pints
Shecrness ..		1b	468	1032	125	140	85 pints
Sittingbourne ..		1a	245	638	25	30	1526 pints and 243 lbs. dried milk
Tunbridge Wells	1	†2	656	4355	29	29	6613 pints
Dartford Rural	4		1136	3416	2	22	350 pints
Milton Rural ...		1a	369	730	72	90	1050 pints and 124 lbs. dried milk
Tonbridge Rural		11	388	1418	5	5	706 pints

† Whole-time officials, but dividing their time between health visiting and school nursing.
a & b. Whole-time health visitors for combined districts, as shown.

The following brief observations of the local medical officers of health give an indication of the work which is carried on, or proposed, outside the headings of the above table ;—

Bromley.—The Rochester Diocesan Society for befriending women and girls have received twenty-six nursing and expectant mothers into their home at 29, Ravensbourne Road.

Chatham.—Arrangements have been made between the Chatham Borough Council and the Committee of the Royal Naval Benevolent Society, for the admission to the latter's new maternity home (when completed) of certain maternity cases arising among the civil population.

Dartford.—The Voluntary Workers' Society co-operates with the council in maternity and child welfare work.

Dover.—A voluntary committee provides maternity bags, &c., to mothers who require the same.

Folkestone.—A scheme has been prepared for the provision of a crèche in conjunction with a maternity home. The council are awaiting the possession of premises for the purpose.

Gravesend.—A voluntary committee carry on a daily crèche under the auspices of the Ragged School Union.

Milton Regis.—An ante-natal clinic is shortly to be established.

Penge.—A crèche has been established for Anerley and district.

Ramsgate.—The Ramsgate and St. Lawrence Maternity Association and Mothercraft Club works in co-ordination with the council.

Sheerness.—The Lethbridge Nursing Society co-operates in the work of infant welfare.

Sittingbourne.—An ante-natal clinic is shortly to be established.

Tunbridge Wells.—The St. John's Ambulance Nursing Brigade have established a subsidiary maternity and child welfare centre, which is attended by the medical officer of health and superintended by the health visitor.

Milton Rural.—An ante-natal clinic is shortly to be established.

MILK SUPPLY.

I am indebted to the County Analyst for the following information respecting his examinations during 1920, for the presence of preservatives in milk, skimmed milk and cream :—

1. *Milk and Cream not sold as Preserved Cream :—*

	(a) Number of samples examined for the presence of a preservative.	(b) Number in which a preservative was reported to be present and per- centage of preservative found in each sample.
Milk	1,121	2 samples, one of which con- tained 0·024 % and the other sample 0·029 % of boric acid.*
Skimmed milk	6	0
Cream	6	4 (1) 0·14 % boric acid (2) 0·22 % „ (3) 0·26 % „ (4) 0·26 % „

Action taken with respect to the milk samples is not known. The vendor of one sample of cream was prosecuted and fined £2. Letters of caution were sent in other cases.

2. *Cream Sold as Preserved Cream :—*

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct :—

(i.) Correct statements made.....	3
(ii.) Statements incorrect	0
	—
	3
(iii.) Percentage of preservative found in each sample.	Percentage stated on statutory label.
0·35	0·4
0·30	0·40
0·24	No label.

(b) Determinations made of milk fat in cream sold as preserved cream :—

(i.) Above 35 %	3
(ii.) Below 35 %	0
	—
Total	3
	—

* In these instances the dairyman concerned sold his cows and discontinued acting as a dairyman, and in these circumstances the local authority did not institute proceedings.

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V (2) of the Regulations have not been observed.

In one instance cream was demanded and preserved cream sold, the purchaser being informed of the nature of the article, but the preserved cream was not labelled in accordance with Article V. (2).

(d) Particulars of each case in which the regulations have not been complied with and action taken.

The only case in which the regulations were not complied with was the one mentioned above. The vendor was cautioned.

3. *Thickening Substances* :—

No evidence of their addition to any sample of cream or preserved cream was obtained.

4. *Analyst's Observations* :—

Samples of condensed milk examined were all free from preservatives.

The following observations of the medical officers of health are of interest in relation to the milk supply :—

URBAN DISTRICTS :—

Broadstairs.—There is a model dairy and cowshed in Broadstairs in which grade A (certified) milk is produced.

Chatham.—A veterinary surgeon visits the cowsheds every three months and reports on the condition of the cows. The effect of these inspections (and also visits by the medical officer of health and inspector of nuisances) is the securing of a standard of cleanliness which, whilst far from perfect, is better than it would otherwise be. Dr. Holroyde made a special report on cowsheds during the year.

Ramsgate. - The medical officer of health again refers to the impossibility of securing convictions for adulterated milk, owing to the unsatisfactory state of the law.

RURAL DISTRICTS :—

Dartford.—The long promised Milk Bill would improve the quality and cleanliness of the milk, and is much needed.

Elham.—Many of the cowsheds are not up to the standard required for the production of a pure milk supply, but it is hoped to effect improvements during the coming year.

Hollingbourn.—Dr. Tuke refers to the dirty condition of some of the cowsheds and cows.

FOOD SUPPLY.

The amount of food condemned during the year in the various districts is shown in Tables 30 and 31, and the districts where the inspector of nuisances holds the meat inspector's certificate on page 5. References to food supply in the county schedules are as follows :—

Chatham.—Dr. Holroyde made a special report to his council during the year on the unsatisfactory conditions attending the sale of fresh meat in the open market.

Ramsgate.—The medical officer of health refers to the need of legislation to prevent the improper storing, handling, exposure, &c., of foods.

Malling Rural.—Dr. Roberts refers to the existence generally of primitive slaughterhouses.

Several of the schedules contain references to the need of the provision of public abattoirs and the difficulties of establishing such.

SANITATION OF HOPPER ENCAMPMENTS.

Very few complaints have been enumerated on the county schedules as to the condition of the hopper encampments in the county, and in their absence it is assumed that there now exist very few grounds of complaint. The following are the only references under this heading :—

Ashford, East.—The maintenance of a proper scavenging service at the various encampments has been a matter of difficulty.

Cranbrook.—Several new huts were erected during the season.

Eastry.—Minor improvements have been carried out.

Faversham Rural.—More attention is now being paid to the observance of the bye-laws, which in the past have been neglected.

Malling.—The improvement of conditions is gradual but continuous.

HOUSING.

Tables 26 and 27 show the activities undertaken during the year, under Section 17 of the Housing, Town Planning &c. Act. The defects remedied during the year show a satisfactory increase on the number recorded in the previous year. Stringent action under the Act is not yet possible having in mind the present economic position, and the lack of new houses to replace those which otherwise would either be condemned or subject to extensive repairs.

Tables 28 and 29 are a continuation of the summaries contained in my last three annual reports, and they indicate that less progress than was expected is being made in the provision of houses under schemes drawn up by district councils. The houses erected by private enterprise, however, are probably more than was anticipated having in view the high cost of materials and labour.

The Medical Officer of Health for Chatham writes : "One of the oddest things in connection with housing is that the vast amount of labour, energy and talk which has been expended on the subject has been productive of such small results. It seems to be generally acknowledged that the men and women of a nation constitute its true wealth and yet they cannot get houses. But when we get away from ideals, and come down to plain, hard, monetary facts then we find the reason. In the past workmen's dwellings, including those appalling tenement edifices humorously called model dwellings, have been the result of a pure business compromise between what was wanted and the money available—the latter being strictly limited by the relation of rent to the interest required on invested capital. The present position which has now obtained for a long period is that the erection of dwellings is not a profitable speculation, and naturally no builder will undertake work under such conditions.

Labour and materials are now so dear that the amount of rent which a tenant can pay does not give a sufficient return upon the capital invested. Houses were and are urgently needed and at the end of the War the Government was faced with the necessity of taking action. The situation was without a precedent, and it was quite clear that without State aid, houses would not be forthcoming, and it was also abundantly clear that slum property would persist and deteriorate for the simple reason that however bad a house may be—it must remain occupied if no other is available. Under the circumstances the Government embarked on one of the greatest constructive schemes recorded, one which had for its ideal a complete reformation of the scandalous and insanitary conditions under which many people are compelled to live, providing for the clearance and improvement of insanitary houses and areas, and for the better planning of new districts. Its necessity was acknowledged, but it has been subjected to bitter criticism and hostility and has literally had to fight its way through the opposition and inertia not only of those who did not approve of the financial aspect, but of the very people who would benefit by improved housing conditions.

The dominant factor in the situation is that houses must be built, and if structures which necessitate skilled labour cannot be erected because of the lack of skilled workers then other forms of construction must be adopted."

TABLE 26.—Showing the number of houses inspected under, and for the purposes of, Section 17 of the Housing, Town Planning, &c. Act, 1909, in the Urban Districts of the County of Kent.

DISTRICT.	Number of dwelling-houses inspected.	Number of dwelling-houses which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.	Number of representations made to the local authority with a view to the making of closing orders.	Number of closing orders made.	Number of dwelling-houses, the defects in which were remedied without the making of closing orders.	Numbers of dwelling-houses which, after the making of closing orders, were put into a fit state for human habitation.	Number of demolition orders.	Number of houses demolished.
Ashford	128	1	1	1	91	1	—	—
Beckenham	116	1	1	1	115	1	—	—
Bexley	339	10	10	10	113	1	—	—
Broadstairs and St. Peter's	37	—	—	—	45	—	—	—
Bromley (Borough)...	425	—	—	—	300	—	—	—
Chatham (Borough) ...	2	2	2	2	—	1	—	—
Cheriton	26	6	1	1	25	—	—	—
Chislehurst	1	—	—	—	1	—	—	—
Dartford	443	—	—	—	220	—	—	—
Deal (Borough)	75	1	1	1	36	1	—	—
Dover (Borough)	771	10	10	10	694	16	4	10
Erith... ..	1030	—	—	—	450	—	—	—
Faversham (Borough) ...	227	11	11	11	134	2	1	11
Folkestone (Borough) ...	2	2	2	—	—	—	—	1
Footscray	—	—	—	—	—	—	—	—
Gillingham (Borough) ...	69	12	12	12	40	—	—	—
Gravesend (Borough) ...	—	—	—	—	—	—	—	—
Herne Bay	50	2	2	2	23	—	—	—
Hythe (Borough)	44	—	—	—	31	—	—	—
Lydd (Borough)	—	2	1	1	10	—	—	—
Maidstone (Borough) ...	612	—	—	—	353	—	—	—
Margate (Borough)	78	37	1	7	9	—	5	—
Milton Regis	164	—	—	—	58	—	—	1
New Romney (Borough) ...	24	—	—	—	—	—	—	—
Northfleet	203	—	—	—	93	—	—	—
Penge	52	—	—	—	30	1	—	—
Queenborough (Borough) ...	50	—	—	—	—	—	—	—
Ramsgate (Borough)	251	61	2	33	185	8	47	29
Rochester (City)	97	9	9	9	26	1	—	2
Sandgate	181	—	—	—	10	—	—	—
Sandwich (Borough)	22	—	—	—	9	—	—	5
Sevenoaks	—	—	—	—	—	—	—	—
Sheerness	340	4	4	4	5	1	21	1
Sittingbourne	399	4	4	4	395	—	18	5
Southborough	104	—	—	—	—	—	—	—
Tenterden (Borough) ...	—	—	—	—	—	—	—	—
Tonbridge	175	—	—	—	97	—	—	—
Tunbridge Wells (Borough)	34	—	—	—	—	—	—	—
Walmer	138	—	—	—	40	—	—	—
Whitstable	160	17	—	—	91	—	—	—
Wrotham	3	3	3	—	—	—	—	—
Total Urban	6872	195	77	109	3729	34	96	65

TABLE 27 —Showing the number of houses inspected under, and for the purposes of, Section 17 of the Housing, Town Planning, &c. Act, 1909, in the Rural Districts of the County of Kent.

DISTRICT.				Number of dwelling-houses inspected.	Number of dwelling-houses which were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation.	Number of representations made to the local authority with a view to the making of closing orders.	Number of closing orders made.	Number of dwelling-houses, the defects in which were remedied without the making of closing orders.	Number of dwelling-houses which, after the making of closing orders, were put into a fit state for human habitation.	Number of demolition orders.	Number of houses demolished.
Ashford, East	...	...	...	28	5	5	2	12	—	2	—
Ashford, West	...	...	...	32	—	—	—	7	—	—	—
Blean...	...	...	...	63	2	1	1	46	—	—	—
Bridge	...	...	...	30	18	—	—	15	—	—	—
Bromley	...	...	...	2	2	—	—	2	—	—	—
Cranbrook	..	...	...	16	—	—	—	2	—	—	—
Dartford	...	...	...	484	12	10	10	324	—	—	—
Dover	...	...	...	115	—	—	—	21	—	—	—
Eastry	...	...	...	106	44	—	—	20	—	—	—
Elham	..	...	...	210	3	2	2	113	—	—	2
Faversham	...	...	...	557	—	—	—	248	—	—	—
Hollingbourn	...	...	...	697	1	1	1	98	—	—	—
Hoo	...	...	...	11	—	—	—	11	—	—	—
Maidstone	...	...	...	169	2	2	2	34	—	—	—
Malling	...	...	...	225	2	3	1	102	—	1	1
Milton	...	...	...	438	—	—	—	274	—	—	—
Romney Marsh	...	...	...	97	2	2	2	—	—	1	1
Sevenoaks	...	...	...	—	—	—	—	—	6	—	6
Sheppey	...	...	...	80	—	—	—	10	—	—	—
Strood	...	...	...	165	14	13	13	127	—	—	4
Tenterden	...	...	..	—	—	—	—	—	—	—	—
Thanet	...	...	...	28	8	—	—	4	—	—	2
Tonbridge	...	...	...	653	—	—	—	642	—	—	—
1920.	Total in Rural Districts			4206	115	39	34	2112	6	4	16
	Total in Urban Districts			6872	195	77	109	3729	34	96	65
	Total for County			11078	310	116	143	5841	40	100	81
1919.	Total in Rural Districts			5554	101	37	19	1320	18	37	54
	Total in Urban Districts			6052	468	448	436	2252	57	47	21
	Total for County			11606	569	485	455	3572	75	84	75

TABLE 28.—Showing the estimated housing needs of each district and the progress made.

URBAN DISTRICTS.

DISTRICT.	Number of houses included in Council's scheme for provision of new dwellings.	Number of houses erected in 1920.		Whether housing shortage is now less acute through local circumstances, other than the needs having been met by building.
		Under Council's scheme.	By private enterprise.	
Ashford..	84	—	3	No.
Beckenham	400	196 (in process)	2	omplaints of shortage less frequent, possibly due to occupation of large houses as tenements and to removals into other districts.
Bexley	426	6	9	No.
Breadstairs	50	—	12	No.
Bromley	300	—	12 (and about 20 in process)	No. First batch of houses in council's scheme occupied in March, 1921. Other batches due for completion at short intervals.
Chatham	300	52	7	Not so acute, though none of the council's houses were ready for occupation at time of writing owing to the difficulty of obtaining fittings, baths, &c.
Cheriton	—	—	7	The shortage was never acute in this district.
Chislehurst	100	—	—	No.
Dartford	600	21	68	No. The demand is still great.
Deal	36	—	—	No information.
Dover	1002	—	3	Yes.
Erith	1000	—	5	No.
Faversham	62	—	—	Yes, owing to removals from the district.
Folkestone	282	20	21	Yes.
Footscray	—	—	4	The shortage was never acute in this district.
Gillingham	500	142 (in process)	16	Yes.
Gravesend.....	530	—	—	No. The shortage is as bad, if not worse, than in 1919.
Herne Bay	20	—	15	No.
Hythe	42	—	2	No.
Lydd	6	—	—	Yes, owing to the removal of Lydd Camp.
Maidstone.....	450	31	10	No.
Margate	300	124 (in process)	16	No.
Milton Regis ...	40	—	—	No.
New Romney .	4	—	1	Yes.
Northfleet.....	142	2	10	No.
Penge	200	—	—	No.
Queenborough ...	132	—	2	Yes.
Ramsgate	?	—	1	No.
Rochester	194	—	2	No.
Sandgate	24	—	2	Yes.
Sandwich	100	—	2	Yes.
Sevenoaks.....	140	18	1	No.
Sheerness	400	—	—	Yes.
Sittingbourne ...	50	4	1	No.
Southborough ...	10	—	—	No.
Tenterden.....	40	—	2	No.
Tonbridge.....	652	10	2	Yes, owing to closing of certain factories.
Tunbridge Wells	50	—	—	No.
Walmer.....	—	—	2	Yes.
Whitstable	51	8	41	Yes, but unfit houses are still in occupation.
Wrotham	66	11	3	No information.

TABLE 29.—Showing the estimated housing needs of each district, and the progress made.

RURAL DISTRICTS.

DISTRICT.	Number of houses included in Council's scheme for the provision of new dwellings.	Number of houses erected in 1920.		Whether housing shortage is now less acute, through local circumstances, other than the needs having been met by building.
		Under Council's Scheme.	By private enterprise.	
Ashford, East ...	342	—	5	Yes.
Ashford, West .	62	—	17	Yes, several cottages unoccupied at the time of writing.
Blean.....	60	—	26	Yes.
Bridge	50	—	—	Yes.
Bromley	360	—	54	No.
Cranbrook ...	96	—	3	No.
Dartford	890	—	27	No, shortage still serious, and overcrowding exists.
Dover	18	—	19	Situation about normal.
Eastry	100	—	8	No.
Elham	27	—	16	No.
Faversham	63	—	7	Yes, owing to removals from the district.
Hollingbourn ...	76	24 in process	28	Yes.
Hoo	124	—	1	Yes, owing to removals from the district.
Maidstone	130	—	14	Yes, many parishes now state they do not require new houses.
Malling	250	10 42 in process	25	Yes.
Milton	40	—	48	No.
Romney Marsh...	20	—	9	No.
Sevenoaks.....	303	11	7	Yes.
Sheppey	20	—	11	Yes.
Strood	66	—	12 (and 34 in process)	Yes, in the industrial areas.
Tenterden.....	74	—	6	No.
Thanet	116	—	7	Yes, owing to closure of Richborough Works.
Tonbridge.. ..	240	—	—	No.

WATER SUPPLIES.

The following is an enumeration of the works which have been carried out during the year under review, and improvements which are needed. The extremely high cost of carrying out new works (particularly affecting the extension of mains for any distance in rural districts), at a time when public expenditure has to be curtailed, has prevented many local authorities from going forward with various schemes for improving supplies :—

URBAN DISTRICTS :—

Ashford.—The scheme for increased storage capacity of the reservoir is still under consideration. New engines and pumps have been installed at the pumping station.

Folkestone.—Complaints were made of a confervoid deposit in the lower part of the town.

New Romney.—Extra precautions have been taken to guard against the pollution of the present supply.

Queenborough.—The question of providing new pumps in duplicate and a service reservoir of 175,000 gallons capacity, is under consideration.

Sheerness.—During the year the third well bore-hole was successful, and this may reasonably be expected to produce a sufficient quantity to ensure a “constant,” in place of the present “intermittent,” supply. The mains and services, however, are not at present good enough to withstand the pressure.

Tonbridge.—During the year a Wallace Tierman Chlorinator has been installed by which the water is treated with a solution of chlorine in the proportion of one in four millions. In the early part of the year some small polychaete worms (*Nais*) gained access to one of the local branch mains these are quite harmless but undesirable. They probably gained access through a neighbouring “ball” hydrant and this type is being replaced by the more modern and safer “screwdownvalve” hydrant.

Tunbridge Wells.—Deep well pumping plant for two bore-wells has been installed—this is the completion of the pre-war undertaking. A new 16 inch rising main to the service reservoir has been provided.

Whitstable.—The water contains some oxide of iron which renders it a bad colour at times.

RURAL DISTRICTS :—

Bridge.—Main water is needed at Rough Common.

Elham.—The water mains could conveniently be extended to include the village of Sellindge.

Hollingbourn.—A supply is urgently needed for part of Headcorn, Bredhurst, Stockbury and at the foot of Chart Hill.

Hoo.—An improved water supply is needed for the parishes of Grain and Cooling. The District Council are negotiating with the Air Board for a supply at Grain.

Romney Marsh.—The matter of providing a good water supply for Dymchurch becomes more urgent, as considerable building is taking place.

Sheppey.—The supply is intermittent, although the quality of the water is satisfactory. The council has a scheme in hand to obtain water from the Sheerness U.D.C. to supply part of the district.

DRAINAGE AND SEWERAGE.

URBAN DISTRICTS :—

Broadstairs.—The scheme for sewerage the area added to the district in 1914 is being proceeded with in stages.

Chatham.—The council has improved its cesspool emptying plant, and has utilised motor traction and exhaust pumping to facilitate the work, and effect an economy in working. The need for a main drainage scheme with Rochester—which was held up by the war—is as great, or more so, than ever, but it is impossible to carry out without placing a crushing burden on the ratepayers.

Erith.—The cesspools on the marshes need abolishing and a sewer provided in substitution.

Folkestone.—The sewer outfall scheme referred to in previous reports should be carried out.

Gravesend.—Motor traction is now used for the removal of sewage with the result that there has been great diminution of overflowing cesspools. The sewage is deposited outside the borough.

New Romney.—Drainage is into cesspools, many of which are not watertight. The Littlestone drainage outflow is very unsatisfactory, being into an open sewer. Filter beds or a sewage farm should be provided.

Northfleet.—A motor pump is now in use and materially assists in emptying cesspools. A motor van, carrying an airtight tank, has also recently been purchased and shortens the time in getting rid of the contents. There are still a few pit closets in the more rural part of the district where the houses are scattered, but these give rise to no nuisance as they are far away from the cottages.

Rochester.—The Rochester and Chatham Joint Drainage scheme is in abeyance owing to the prohibitive cost.

Sheerness.—A scheme for the remodelling and extension of the present drainage system has been prepared, and a loan granted by the Ministry of Health. It is anticipated that the first portion of the work will be completed during 1921.

Walmer.—The small portion of the district drained into cesspools would be improved if this method was converted to main sewerage, but no trouble has been experienced.

Wrotham.—A drainage scheme has been approved, and will be commenced when the money is forthcoming.

RURAL DISTRICTS:—

Blean.—[In my annual report for 1919 it was stated that the parishes of Herne and Reculver were drained by the Herne Bay sewers. This is an error, as these two villages have their own system, and it is not connected in any way with the Herne Bay sewers].

Dartford.—The main drainage of Stone and Swanscombe is a very urgent need, as the present system is highly unsatisfactory. Most of the cesspools overflow before they can be emptied, and the nuisance is general throughout these parishes. This improvement will be effected as soon as the prices fall sufficiently to reduce the cost to an amount which will be covered by the present annual outlay on sanitary vans, at present amounting to something about £5,000 per annum.

Faversham.—Main drainage is required for Teynham and Lynsted (parts of), and for Ospringe.

Malling.—The parish of Watlingbury is in need of an improved sewerage scheme, but it is not proposed to take any action in view of the cost of such an undertaking at the present time.

Milton.—Main drainage is badly needed in the parish of Rainham.

Romney Marsh.—A number of unsealed cesspools are being constructed, not in accordance with the bye-laws. The extension of the main drain at Dymchurch should be seriously considered.

Tenterden.—A small scheme of sewage purification at the "Layne," Rolvenden, is still in abeyance.

Thanet.—The villages of Birchington, Acol and Monkton are undrained.

SCAVENGING.

Only eight of the district councils in Kent have provided a refuse destructor, viz., Beckenham, Bromley, Dartford, Folkestone, Gravesend (said not to be used), Margate, Ramsgate and Sheerness.

The following information as to deficiencies which have been remedied during the year, or conditions needing remedy in the near future, has been extracted from the annual county schedules :—

URBAN DISTRICTS :—

Chatham.—A better type of cart is needed.

Cheriton.—Marked improvement has followed closer supervision in this service.

Chislehurst.—A few complaints were received as to the delay in the removal of house refuse.

Faversham.—The refuse is still left about in open boxes.

Folkestone.—Motor lorry transport has been increased and the provision of proper dustbins has been enforced, with the power to approve and specify size and structure of such, with penalty for default.

Gillingham.—House refuse is now removed by motor lorries to the new tip at Twydal, well away from the town. Two removals a week would be an improvement.

Gravesend.—Motor traction is now used for the removal of house refuse, with the result that this service has been “speeded up.” The dust is deposited outside the borough and is used to soak up the sewage.

New Romney.—The scavenging cart should be so covered as to prevent dust, &c., from blowing about.

Northfleet.—Owing to limited hours of labour house refuse is removed only about once in fourteen days.

Queenborough.—There was room for improvement in the scavenging done by contract, and the council have since decided to do this work by direct labour.

Ramsgate.—An advance was made during the year by the council deciding to insist on all premises having suitable receptacles for the rubbish to be deposited, in accordance with the bye-laws.

Rochester.—There is a great need for proper dustbins for all houses.

Sandgate.—There is a lack of proper sanitary dustbins.

Sheerness.—Greater efficiency would result from the destructor being enlarged.

Sittingbourne.—Trade refuse is now collected twice weekly if put in sanitary dustbins.

Walmer.—The refuse depôt should be removed further from the built-up area.

East Ashford.—Difficulty is experienced in maintaining an efficient scavenging service, owing to labour troubles.

RURAL DISTRICTS :—

Hollingbourn.—Scavenging is required in the larger parishes of the district.

Maidstone.—No scavenging is carried out in this district.

Malling.—The refuse dump for East Malling and Larkfield has caused trouble.

Thanet.—During the year the Westgate Parish Council commenced to undertake the removal of refuse, which is carried out under supervision of the inspector of nuisances.

RIVERS POLLUTION.

Full details of the pollution of rivers and streams in Kent, were given on pages 106-108 of my last Annual Report.

Steps have been taken to remedy the condition of the Stour (Ashford) and Chaffinch Brook (Beckenham). In the former case additional ground in use at Bybrook is to be properly underdrained, and this will assist in preventing pollution. As regards the latter, the Croydon Corporation have fixed several additional sprinklers and an improvement has been noted by the absence of smells from the Brook at Beckenham.

The Port of London Authority has issued a summons against the Gravesend Corporation for contamination of the River Thames from the dwellings, &c., on the river bank. Several meetings have taken place and the case has been adjourned, owing to the difficulty of treating the sewage in the absence of main drainage.

SANITARY WORK—GENERAL.

I append herewith (Tables 30 and 31) a tabular statement showing a record of the work undertaken in the various sanitary districts during the year by the various inspectors of nuisances, to whom I am indebted for the information. The record also shows the approximate numbers of each type of sanitary convenience in the districts.

The duties of the county sanitary inspector during the year were confined mainly to housing inspections in the various districts. In addition to these inspections he assisted the county medical officer by investigating the many special complaints which were received by the department, by taking samples of milk and water required for bacteriological examination in the county laboratory, and by the preparation of plans. At the end of the year he commenced a series of investigations into the sanitary circumstances of various rural districts in the county, two of which have appeared in the Quarterly Health Reports.

METEOROLOGICAL OBSERVATIONS.

The following are particulars of the meteorological observations taken in the various districts :—

URBAN DISTRICTS :—

Beckenham.—Daily observations are made by the surveyor.

Broadstairs.—Daily observations are made by the surveyor.

Chatham.—Rainfall is recorded at the Luton waterworks.

Deal.—Daily observations on rainfall, wind and temperatures are made.

Folkestone.—There is an observation station at the isolation hospital under the control of the borough surveyor.

Herne Bay.—Rainfall records are taken at the sewage pumping station, and temperature records at the pier.

Hythe.—Rainfall observations are made.

Maidstone.—Daily barometric readings are made at the surveyor's office and records kept as to wind, temperature and rainfall. Rainfall observations are made by the Maidstone Waterworks Company.

Margate.—Full observations are taken twice daily.

Penge.—Rainfall is registered at the recreation grounds.

Queenborough.—Humidity of air has been registered since December, 1920.

Ramsgate.—The borough surveyor furnishes records of sunshine taken on the roof of the municipal offices, and the gas and water engineer those of rainfall and temperature taken at the Southwood waterworks.

Rochester.—Rainfall records are taken daily at Strood waterworks.

Sandwich.—Rain gauges are kept by some private persons.

Southborough.—Rainfall is recorded by the waterworks engineer for private information.

Tunbridge Wells.—There is an auxiliary station of the Meteorological Office, at which records are kept by the public health staff.

Walmer—The resident engineer at the Deal and Walmer waterworks takes observations.

RURAL DISTRICTS :—

Faversham.—Private records are kept by residents in Teynham, Selling and Ospringe.

Hollingbourn.—Dr. Tuke keeps private records.

Sheppey.—Observations are carried out by the medical officer of health at Minster and by a private resident at Eastchurch.

ADOPTIVE ACTS AND BYE-LAWS.

A summary showing the bye-laws and adoptive Acts in force in the various districts in Kent was contained on pages 108h and 108i of my last Annual Report.

During 1920 new bye-laws as to New Streets and Buildings (P.H. Act, 1875, s. 157, and P.H.A.A. Act, 1890, s. 23) were adopted in *Whitstable*; as to offensive trades (P.H. Act, 1875, s. 113) in *Dartford*; as to houses let in lodgings (P.H. Act, 1875, s. 90) in *Margate*; and as to slaughter-houses (P.H. Act, 1875, s. 169) in *Thanet Rural*.

Bye-laws respecting tents, vans, and sheds (H.W.C. Act, 1885, s. 9 (2)) are needed in *Bexley*

Bye-laws as to offensive trades (fried fish shops) are required in *Broadstairs*.

Bye-laws as to houses let in lodgings (P.H. Act, 1875, s. 90) are needed in *Dover*, *Folkestone*, *Herne Bay* and *Sheerness*.

In *Folkestone* the bye-laws as to slaughter-houses (P.H. Act, 1875, s. 169) are said to require amending and amplifying. New bye-laws under this section are in course of preparation in *Rochester*, and are said to be required in *Elham Rural*.

Bye-laws requiring the provision of sanitary dustbins are needed in *Walmer*.

The question of the adoption of the Ministry of Health's Model Regulations as to dairies, cowsheds and milkshops is under consideration by the *Blean R.D.C.*

Bye-laws as to the paving of yards are required in *Cranbrook Rural*.

In the *Faversham Rural* district the medical officer of health suggests the adoption of a bye-law to allow soakaway cesspools in certain areas.

In *Hollingbourn Rural* the building bye-laws are only in force in the parishes of Boxley, Harrietsham, Headcorn, Hollingbourn, Leeds, Lenham and Sutton Valence. The medical officer of health considers that they are urgently needed in the rest of the rural district.

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The question of the adoption of the Ministry of Health's Model Regulations as to dairies, cowsheds and milkshops is under consideration by the *Blean R.D.C.*

Bye-laws as to the paving of yards are required in *Grainbrook Rural*.

In the *Faversham Rural* district the medical officer of health suggests the adoption of a bye-law to allow soakaway cesspools in certain areas.

In *Hollingbourn Rural* the building bye-laws are only in force in the parishes of Boxley, Harrietsham, Headcorn, Hollingbourn, Leeds, Lenham and Sutton Valence. The medical officer of health considers that they are urgently needed in the rest of the rural district.

TABLE 31. Showing Record of Sanitary Work undertaken by **RURAL** District Inspectors of Nuisances during the year 1920.

[illegible]

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A summary showing the bye-laws and adoptive Acts in force in the various districts in Kent was contained on pages 108h and 108i of my last Annual Report.

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Bye-laws respecting tents, vans, and sheds (H.W.C. Act, 1885, s. 9 (2)) are needed in *Bexley*

Bye-laws as to offensive trades (fried fish shops) are required in *Broadstairs*.

Bye-laws as to houses let in lodgings (P.H. Act, 1875, s. 90) are needed in *Dover*, *Folkestone*, *Herne Bay* and *Sheerness*.

In *Folkestone* the bye-laws as to slaughter-houses (P.H. Act, 1875, s. 169) are said to require amending and amplifying. New bye-laws under this section are in course of preparation in *Rochester*, and are said to be required in *Elham Rural*.

Bye-laws requiring the provision of sanitary dustbins are needed in *Walmer*.

The question of the adoption of the Ministry of Health's Model Regulations as to dairies, cowsheds and milkshops is under consideration by the *Blean R.D.C.*

Bye-laws as to the paving of yards are required in *Granbrook Rural*.

In the *Faversham Rural* district the medical officer of health suggests the adoption of a bye-law to allow soakaway cesspools in certain areas.

In *Hollingbourn Rural* the building bye-laws are only in force in the parishes of Boxley, Harrietsham, Headcorn, Hollingbourn, Leeds, Lenham and Sutton Valence. The medical officer of health considers that they are urgently needed in the rest of the rural district.

TABLE 32.—In regard to Births and Deaths; Zymotic, Phthisis and Infantile Mortality; and Incidence of Scarlet Fever, Diphtheria and Enteric Fever—showing the amount of the rate above or below the Urban District average for the years 1920, 1919 and the five years' average 1914–1918, in each Urban District in the County of Kent.

DISTRICT.	Birth Rate.			Death Rate.			Zymotic Death Rate.			Phthisis Death Rate.			Infantile Mortality per 1,000 births.			Incidence of Infectious Diseases per 1,000 of the population.								
	1920.	1919.	Aver. 1914-1918.	1920.	1919.	Aver. 1914-1918.	1920.	1919.	Aver. 1914-1918.	1920.	1919.	Aver. 1914-1918.	1920.	1919.	Aver. 1914-1918.	Scarlet Fever.			Diphtheria.			Enteric Fever.		
																1920.	1919.	Aver. 1914-1918.	1920.	1919.	Aver. 1914-1918.	1920.	1919.	Aver. 1914-1918.
Ashford	2·7	3·4	0·9	1·0	0·3	0·1	0·35	0·19	0·10	0·12	0·42	0·19	6	11	0	1·69	0·76	0·59	0·03	3·97	1·23	0·14	0·10	0·06
Beckenham	4·4	4·9	4·0	1·2	2·0	3·1	0·08	0·26	0·30	0·38	0·23	0·30	1	4	16	0·42	0·16	0·75	0·86	0·37	0·68	0·13	0·03	0·08
Bexley	1·7	1·5	1·9	1·1	2·1	1·4	0·26	0·27	0·06	0·14	0·14	0·15	16	22	6	4·45	0·38	2·42	0·26	1·31	0·97	0·14	0·05	0·18
Broadstairs and St. Peter's ...	2·9	6·5	7·2	2·4	1·7	1·6	0·85	0·31	0·36	0·20	1·29	0·26	4	17	12	0·34	3·56	0·08	5·16	0·82	0·22	0·01	0·04	0·15
Bromley (Borough) ...	3·3	3·5	2·9	1·5	1·0	2·2	0·23	0·01	0·30	0·36	0·36	0·17	6	1	9	0·28	0·15	0·72	0·32	1·42	0·05	0·11	0·02	0·17
Chatham (Borough) ...	3·7	3·6	3·8	1·5	2·2	2·7	0·48	0·21	0·54	0·48	0·53	0·34	10	25	16	0·29	0·48	0·10	3·93	0·95	0·21	0·14	0·01	0·01
Cheriton	1·4	8·0	6·1	1·4	1·2	0·8	0·53	0·45	0·29	0·44	0·76	0·13	26	8	22	1·62	1·49	2·51	1·59	0·17	0·30	0·14	0·10	0·13
Chislehurst	3·1	2·4	2·7	4·1	2·4	3·0	0·30	0·15	0·27	0·48	0·74	0·44	22	34	24	0·52	1·79	0·51	0·73	0·94	0·72	0·14	0·10	0·05
Crayford*	2·7	—	—	0·4	—	—	0·19	—	—	0·50	—	—	16	—	—	—	—	—	—	—	—	—	—	—
Dartford	0·9	0·9	0·1	2·8	1·2	1·7	0·29	0·09	0·28	0·03	0·24	0·05	16	11	11	5·92	2·97	2·02	5·89	1·94	1·58	0·21	0·30	0·18
Deal (Borough)	2·1	2·8	1·4	2·4	3·2	2·5	0·27	0·27	0·13	0·10	0·19	0·05	28	1	1	1·15	0·24	1·11	2·43	1·03	1·47	0·05	0·08	0·10
Dover (Borough)	1·1	4·2	2·6	0·4	0·5	0·9	0·23	0·45	0·09	0·31	0·33	0·01	15	4	6	0·21	0·92	0·15	0·68	1·04	0·53	0·04	0·10	0·15
Erith	1·5	2·8	3·2	1·7	1·9	2·5	0·05	0·01	0·16	0·01	0·04	0·13	1	14	6	1·11	0·51	2·69	0·39	0·64	0·34	0·04	0·03	0·03
Faversham (Borough) ...	2·1	0·5	1·7	0·6	0·7	1·0	0·34	0·16	0·08	0·10	0·14	0·05	22	17	8	0·37	0·67	0·42	0·85	1·18	0·02	0·42	0·10	0·02
Folkestone (Borough) ...	2·4	1·4	0·1	0·9	0·0	0·1	0·01	0·35	0·02	0·02	0·39	0·04	7	4	0	0·62	0·94	0·35	1·24	1·25	0·49	0·02	0·00	0·12
Footscray	4·7	1·9	3·4	1·0	1·3	3·5	0·07	0·50	0·27	0·48	0·40	0·32	20	27	20	1·06	0·69	1·22	2·98	2·37	3·23	0·14	0·10	0·22
Gillingham (Borough) ...	1·9	4·5	2·8	0·0	0·9	0·4	0·16	0·12	0·08	0·02	0·14	0·09	4	8	4	0·19	1·51	0·83	0·04	0·53	0·39	0·11	0·05	0·09
Gravesend (Borough) ...	2·0	1·1	1·6	0·3	1·4	1·0	0·16	0·24	0·28	0·00	0·77	0·14	4	2	2	2·13	0·14	0·58	0·57	0·02	0·09	0·09	0·01	0·03
Herne Bay	4·7	3·0	3·2	0·6	2·5	1·7	0·53	0·08	0·31	0·11	0·09	0·07	24	6	0	0·94	0·70	0·38	1·43	0·90	0·03	0·10	0·03	0·06
Hythe (Borough)	2·7	0·8	2·4	2·2	2·4	0·2	0·25	0·45	0·39	0·27	0·27	0·15	3	34	0	2·63	1·77	0·34	1·07	1·37	0·08	0·14	0·10	0·19
Lydd (Borough)	4·9	0·0	1·7	1·6	4·0	3·0	0·53	0·45	0·37	0·16	0·08	0·24	27	22	21	3·05	1·92	0·23	2·61	0·27	1·52	0·14	0·10	0·22
Maidstone (Borough) ...	0·7	1·3	0·1	0·2	1·1	2·1	0·21	0·11	0·03	0·01	0·40	0·51	4	7	6	1·16	1·37	0·94	1·53	0·00	0·75	0·05	0·06	0·45
Margate (Borough)	0·4	2·3	5·5	1·4	0·5	0·1	0·03	0·13	0·19	0·29	0·15	0·02	8	3	2	0·35	2·34	0·06	0·62	0·00	0·46	0·05	0·01	0·10
Milton Regis	1·3	1·2	1·7	1·1	1·0	0·6	0·11	0·02	0·18	0·14	0·28	0·09	1	49	15	1·20	1·20	0·50	0·69	0·48	0·81	0·00	0·62	0·05
New Romney (Borough) ...	2·0	0·3	2·1	3·7	1·0	1·0	0·53	0·45	0·04	0·13	0·27	0·44	29	83	10	3·05	0·48	1·51	2·61	1·66	0·18	0·14	0·10	0·05
Northfleet	5·2	4·1	4·7	2·5	0·6	1·5	0·52	0·77	0·87	0·15	0·40	0·23	2	7	15	1·29	0·36	0·53	2·61	0·99	0·73	0·06	0·10	0·22
Penge	3·4	0·9	1·4	2·6	2·3	0·4	0·01	0·50	0·14	0·28	0·14	0·01	9	93	4	0·23	0·02	0·80	0·55	0·19	0·82	0·06	0·05	0·16
Queenborough (Borough) ...	5·1	2·1	9·0	2·2	2·5	3·0	0·91	0·75	0·69	0·32	0·18	0·63	28	28	10	0·75	1·32	3·45	1·41	6·40	2·00	0·15	0·20	0·05
Ramsgate (Borough)	3·9	1·2	1·9	2·3	0·6	3·2	0·22	0·09	0·08	0·10	0·05	0·51	10	3	13	0·09	0·60	0·90	1·41	0·73	0·39	0·03	0·10	0·04
Rochester (City)	0·4	0·3	1·5	0·1	1·3	0·1	0·05	0·07	0·05	0·18	0·02	0·03	7	4	1	1·25	1·04	0·09	0·99	0·85	0·19	0·05	0·00	0·02
Sandgate	0·5	1·8	2·7	0·1	3·3	1·7	0·03	0·45	0·20	0·48	0·97	0·23	46	71	25	6·45	1·92	0·99	1·11	1·66	1·30	0·14	0·10	0·22
Sandwich (Borough)	0·7	5·5	0·8	1·2	0·0	2·1	0·08	0·45	0·25	0·09	0·05	0·35	17	32	14	1·83	1·92	2·15	2·61	1·66	1·58	0·14	0·10	0·15
Sevenoaks	4·8	8·0	5·0	0·8	1·4	1·4	0·32	0·45	0·33	0·32	0·26	0·06	29	12	21	2·44	1·29	0·80	1·43	1·45	1·10	0·03	0·10	0·15
Sheerness	3·3	4·0	3·6	0·8	0·2	1·8	0·01	0·25	0·55	0·12	0·29	0·08	5	8	15	0·10	1·13	0·45	2·04	1·00	1·25	0·24	0·23	0·75
Sittingbourne	3·1	1·8	3·7	0·8	1·3	0·0	0·08	0·33	0·03	0·27	0·03	0·11	3	34	6	0·18	2·25	0·07	1·51	0·08	1·89	0·20	0·10	0·02
Southborough	1·1	2·3	2·2	2·1	2·2	2·6	0·38	0·45	0·15	0·12	0·02	0·03	24	9	10	0·36	0·89	1·67	1·62	0·77	0·62	0·14	0·10	0·15
Tenterden (Borough) ...	7·1	7·6	4·0	2·8	2·1	2·2	0·25	0·16	0·35	0·00	0·69	0·19	28	19	18	2·77	0·77	0·11	2·33	0·51	0·91	0·14	0·10	0·22
Tonbridge	1·1	3·2	0·9	0·0	0·8	0·5	0·20	0·11	0·37	0·28	0·40	0·08	4	24	7	0·57	0·18	0·17	1·37	1·18	0·14	0·07	0·11	0·04
Tunbridge Wells (Borough)	5·8	4·9	5·6	1·2	1·2	1·1	0·30	0·27	0·27	0·18	0·13	0·14	2	4	2	0·06	0·03	1·61	0·82	0·00	0·10	0·02	0·10	0·10
Walmer	5·7	0·0	3·0	0·1	2·8	1·1	0·28	0·06	0·56	0·48	0·01	0·26	23	23	18	2·80	0·15	0·20	2·61	1·66	1·69	0·14	0·41	0·13
Whitstable	2·6	2·2	1·6	1·8	0·2	1·0	0·42	0·22	0·17	0·37	0·10	0·09	20	11	22	1·20	0·23	0·29	2·06	0·15	2·31	0·03	0·10	0·05
Wrotham	2·3	0·																						

The figures printed in red represent the balance of the rate above the rate for the aggregate Urban Districts, and the figures in black the balance of the rate below the average.
(The actual rate is obtained by adding or deducting the figures shown, to or from the average rates given in the last line).

* Crayford was only constituted an Urban district in October, 1920.

ADOPTIVE ACTS AND BYE-LAWS.

A summary showing the bye-laws and adoptive Acts in force in the various districts in Kent was contained on pages 108h and 108i of my last Annual Report.

During 1920 new bye-laws as to New Streets and Buildings (P.H. Act, 1875, s. 157, and P.H.A.A. Act, 1890, s. 23) were adopted in *Whitstable*; as to offensive trades (P.H. Act, 1875, s. 113) in *Dartford*; as to houses let in lodgings (P.H. Act, 1875, s. 90) in *Margate*; and as to slaughter-houses (P.H. Act, 1875, s. 169) in *Thanet Rural*.

Bye-laws respecting tents, vans, and sheds (H.W.C. Act, 1885, s. 9 (2)) are needed in *Bexley*.

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Bye-laws requiring the provision of sanitary dustbins are needed in *Walmer*.

The question of the adoption of the Ministry of Health's Model Regulations as to dairies, cowsheds and milkshops is under consideration by the *Blean R.D.C.*

Bye-laws as to the paving of yards are required in *Cranbrook Rural*.

In the *Faversham Rural* district the medical officer of health suggests the adoption of a bye-law to allow soakaway cesspools in certain areas.

In *Hollingbourn Rural* the building bye-laws are only in force in the parishes of Boxley, Harrietsham, Headcorn, Hollingbourn, Leeds, Lenham and Sutton Valence. The medical officer of health considers that they are urgently needed in the rest of the rural district.

TABLE 33.—In regard to Births and Deaths; Zymotic, Phthisis and Infantile Mortality; and Incidence of Scarlet Fever, Diphtheria and Enteric Fever—showing the amount of the rate above or below the Rural District average for the years 1920, 1919 and the five years' average 1914–1918, in each Rural District in the County of Kent.

DISTRICT.	Birth Rate.			Death Rate.			Zymotic Death Rate.			Phthisis Death Rate.			Infantile Mortality per 1,000 births.			Incidence of Infectious Diseases per 1,000 of the population.								
																Scarlet Fever.			Diphtheria.			Enteric Fever.		
	1920.	1919.	Aver. 1914–1918.	1920.	1919.	Aver. 1914–1918.	1920.	1919.	Aver. 1914–1918.	1920.	1919.	Aver. 1914–1918.	1920.	1919.	Aver. 1914–1918.	1920.	1919.	Aver. 1914–1918.	1920.	1919.	Aver. 1914–1918.	1920.	1919.	Aver. 1914–1918.
Ashford, East	1·2	0·2	0·3	1·0	0·9	0·1	0·02	0·01	0·03	0·21	0·20	0·24	2	23	5	0·77	0·29	0·75	0·64	0·40	0·51	0·11	0·18	0·05
Ashford West	4·5	2·5	3·1	1·8	0·0	0·3	0·01	0·36	0·27	0·07	0·47	0·16	18	15	12	0·23	0·78	0·56	0·77	1·89	0·29	0·16	0·09	0·08
Blean	4·6	4·4	1·7	0·9	1·8	0·9	0·02	0·31	0·25	0·05	0·09	0·31	7	43	11	0·98	1·31	0·92	1·05	1·87	0·41	0·11	0·05	0·03
Bridge	2·0	0·8	0·5	0·0	1·2	0·6	0·13	0·03	0·13	0·31	0·07	0·01	8	4	12	0·50	0·78	0·47	0·33	0·46	0·59	0·11	0·05	0·16
Bromley	0·5	0·5	0·1	0·9	1·2	0·4	0·25	0·01	0·04	0·40	0·04	0·10	4	11	29	0·77	0·69	0·61	1·74	0·08	0·65	0·03	0·00	0·05
Cranbrook	0·5	2·2	2·0	2·5	0·0	0·6	0·29	0·02	0·25	0·30	0·07	0·25	2	8	3	0·46	1·07	0·99	1·39	0·76	0·27	0·02	0·05	0·03
Dartford	2·5	3·8	2·7	1·9	0·8	0·8	0·27	0·39	0·19	0·07	0·20	0·01	3	4	5	2·30	0·62	1·26	1·74	1·51	0·58	0·08	0·00	0·05
Dover	2·2	3·6	0·7	1·8	2·6	0·3	0·19	0·01	0·09	0·18	0·44	0·21	36	51	13	1·78	1·44	0·07	1·00	1·53	1·16	0·11	0·05	0·00
Eastry	0·4	0·7	0·4	1·5	1·1	0·4	0·05	0·23	0·00	0·14	0·28	0·11	15	25	1	0·63	1·06	0·07	1·22	0·93	0·22	0·03	0·05	0·07
Elham	3·6	1·6	2·9	3·2	2·8	1·1	0·17	0·31	0·34	0·24	0·11	0·07	20	9	5	0·54	0·73	0·14	0·48	1·24	1·56	0·11	0·10	0·00
Faversham	0·7	1·7	3·2	1·4	0·8	1·1	0·24	0·06	0·04	0·02	0·14	0·00	8	1	4	1·14	0·78	0·48	1·37	0·93	2·92	0·25	0·05	0·02
Hollingbourn	2·3	1·5	2·4	0·7	0·8	0·7	0·22	0·03	0·22	0·15	0·15	0·12	1	17	5	0·89	0·63	0·21	0·17	0·01	0·71	0·14	0·05	0·04
Hoo	7·5	4·3	5·6	2·9	0·7	0·6	0·14	0·05	0·07	0·73	0·03	0·17	8	30	11	1·10	3·04	0·31	1·00	1·02	0·84	0·11	0·05	0·01
Maidstone	1·0	0·0	1·1	1·7	2·1	1·2	0·06	0·18	0·01	0·14	0·30	0·20	3	15	1	0·70	0·31	0·35	0·62	0·37	0·03	0·09	0·05	0·06
Malling	5·0	0·8	0·6	0·1	0·1	0·6	0·08	0·05	0·11	0·09	0·27	0·13	4	7	3	0·51	0·35	0·67	0·48	0·62	0·09	0·06	0·09	0·03
Milton	2·3	0·2	1·0	0·6	0·5	0·1	0·01	0·16	0·29	0·39	0·49	0·06	1	1	11	0·76	2·52	0·32	1·62	0·13	0·80	0·11	0·05	0·04
Romney Marsh	1·7	2·6	0·0	1·5	1·8	1·3	0·39	0·07	0·28	0·02	0·12	0·04	17	29	13	1·32	0·19	0·85	1·35	1·53	1·04	0·11	0·05	0·14
Sevenoaks	3·6	4·7	2·5	0·8	0·5	1·3	0·18	0·28	0·19	0·23	0·25	0·04	8	8	13	1·57	0·31	0·44	0·43	0·12	0·45	0·02	0·00	0·10
Sheppey	2·6	7·5	3·0	3·0	4·9	2·2	0·39	0·46	0·37	0·47	0·49	0·37	25	2	8	1·81	1·20	0·34	1·21	1·53	1·55	0·11	0·05	0·29
Strood	1·5	3·2	2·1	0·8	0·0	0·1	0·14	0·36	0·22	0·23	0·28	0·01	3	19	0	0·09	1·18	0·09	0·03	0·78	0·65	0·04	0·05	0·15
Tenterden	4·7	0·5	2·1	0·1	6·3	1·3	0·03	0·27	0·29	0·01	0·28	0·13	18	42	4	1·53	1·55	1·78	1·73	1·15	1·08	0·11	0·05	0·10
Thanet	0·9	1·2	3·9	0·1	0·5	0·1	0·07	0·46	0·07	0·42	0·46	0·28	18	19	0	0·92	1·08	0·41	0·37	1·20	1·19	0·42	0·06	0·01
Tonbridge	3·8	3·3	1·7	0·1	0·9	0·1	0·05	0·17	0·10	0·23	0·16	0·18	4	14	8	0·53	0·48	0·62	0·46	0·61	0·40	0·11	0·01	0·01
Average rates of the 23 Rural Districts	25·2	17·5	18·6	11·2	12·6	13·4	0·39	0·46	0·58	0·73	1·00	0·96	53	64	73	2·07	1·74	1·92	1·73	1·53	1·84	0·11	0·05	0·14

The figures printed in red represent the balance of the rate above the rate for the aggregate Rural Districts, the figures in black the balance of the rate below the average.
(The actual rate is obtained by adding or deducting the figures shewn, to or from the average rates given in the last line).

ADOPTIVE ACTS AND BYE-LAWS.

A summary showing the bye-laws and adoptive Acts in force in the various districts in Kent was contained on pages 108h and 108i of my last Annual Report.

During 1920 new bye-laws as to New Streets and Buildings (P.H. Act, 1875, s. 157, and P.H.A.A. Act, 1890, s. 23) were adopted in *Whitstable*; as to offensive trades (P.H. Act, 1875, s. 113) in *Dartford*; as to houses let in lodgings (P.H. Act, 1875, s. 90) in *Margate*; and as to slaughter-houses (P.H. Act, 1875, s. 169) in *Thanet Rural*.

Bye-laws respecting tents, vans, and sheds (H.W.C. Act, 1885, s. 9 (2)) are needed in *Bexley*.

Bye-laws as to offensive trades (fried fish shops) are required in *Broadstairs*.

Bye-laws as to houses let in lodgings (P.H. Act, 1875, s. 90) are needed in *Dover*, *Folkestone*, *Herne Bay* and *Sheerness*.

In *Folkestone* the bye-laws as to slaughter-houses (P.H. Act, 1875, s. 169) are said to require amending and amplifying. New bye-laws under this section are in course of preparation in *Rochester*, and are said to be required in *Elham Rural*.

Bye-laws requiring the provision of sanitary dustbins are needed in *Walmer*.

The question of the adoption of the Ministry of Health's Model Regulations as to dairies, cowsheds and milkshops is under consideration by the *Blean R.D.C.*

Bye-laws as to the paving of yards are required in *Grainbrook Rural*.

In the *Faversham Rural* district the medical officer of health suggests the adoption of a bye-law to allow soakaway cesspools in certain areas.

In *Hollingbourn Rural* the building bye-laws are only in force in the parishes of Boxley, Harrietsham, Headcorn, Hollingbourn, Leeds, Lenham and Sutton Valence. The medical officer of health considers that they are urgently needed in the rest of the rural district.

TABLE 34.—SHOWING CAUSES OF DEATH IN THE **URBAN DISTRICTS** OF THE COUNTY OF KENT
DURING THE YEAR 1920 (EXCLUDING NAVAL AND MILITARY DEATHS).

104e.

District.	Enteric Fever.	Small-pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Pulmonary Tuberculosis.	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Diarrhoea, &c. (Under 2 years).	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Parturition, apart from Puerperal Fever.	Congenital Debility, &c.	Violence, apart from Suicide.	Suicide.	Other defined Diseases.	Causes ill-defined or unknown.	Special Causes (included above).				
Ashford	5	...	1	3	1	...	14	1	2	29	...	...	16	8	13	2	4	2	...	...	5	1	...	10	2	1	62	...	...	...	...	...
Beckenham ...	1	...	3	1	4	2	11	...	15	4	2	47	1	2	40	20	23	6	4	4	2	...	7	2	...	19	2	2	118	...	...	...	...	3
Bexley	5	...	4	5	2	...	15	1	2	30	1	...	14	21	10	2	3	2	...	...	5	2	2	15	4	1	76	...	...	...	...	...
Broadstairs and St. Peter's	1	1	1	7	3	...	5	2	1	10	...	...	10	2	3	...	1	...	1	...	6	...	...	5	...	1	49	1	...	...	...	...
Bromley (Borough)...	2	1	2	4	4	...	17	2	6	41	...	2	44	28	26	4	...	2	2	...	6	2	1	25	10	3	121	...	...	...	...	...
Chatham (Borough)...	1	...	12	1	4	13	9	...	57	4	7	60	...	2	51	34	31	8	9	...	2	...	8	3	4	33	12	5	135	6	...	1	...	...
Cheriton	3	...	...	10	1	...	6	1	3	...	...	...	...	...	1	1	...	4	2	...	17	...	...	...	...	...
Chislehurst	1	1	...	...	3	1	...	4	1	...	10	6	5	4	...	1	...	...	1	...	1	3	...	1	20	...	...	...	...	...
*Crayford	1	...	...	...	4	2	1	2	...	...	4	2	2	...	...	...	...	...	...	...	...	3	2	1	9	...	...	...	...	...
Dartford	1	...	2	16	3	1	20	1	2	16	2	1	12	18	11	4	...	3	...	1	3	1	2	12	9	2	57	...	...	...	...	...
Deal (Borough)	3	...	3	...	11	...	5	19	...	1	17	6	11	1	...	2	2	1	6	1	...	5	2	4	56	4	...	...	...	...
Dover (Borough)	5	...	2	13	3	...	50	6	7	48	3	6	39	34	30	6	11	4	6	2	6	1	8	37	14	2	130	6	1	...	...	...
Erith	3	2	3	5	2	...	26	4	4	32	1	1	46	18	25	3	2	1	3	...	12	3	3	24	8	5	70	...	...	...	...	...
Faversham (Borough)...	1	...	1	...	10	1	2	14	...	...	8	16	3	1	1	1	1	...	4	...	...	5	6	1	50	1	...	...	...	...
Folkestone (Borough)...	8	...	3	1	5	...	28	6	8	37	4	1	49	27	16	2	5	4	2	...	16	1	1	15	10	2	91	3	...	...	...	...
Footscray	1	3	...	...	3	...	1	15	1	1	5	10	8	...	...	2	...	...	4	...	...	3	...	1	33	...	1	...	...	...
Gillingham (Borough)...	2	...	3	14	11	1	42	4	8	40	3	5	50	37	35	8	12	5	4	1	15	2	4	29	10	4	162	3	2	...	...	...
Gravesend (Borough)...	1	4	3	11	4	26	4	7	36	1	2	36	35	19	4	3	...	1	...	11	...	1	26	15	3	101	1	1	...	...	...
Herne Bay	2	...	8	1	1	9	...	...	8	6	6	...	...	1	...	...	3	...	...	8	4	1	34	...	...	...	...	...
Hythe (Borough)	1	...	2	...	4	...	...	10	...	...	7	3	1	1	1	2	...	...	2	...	...	5	4	...	22	1	...	...	...	...
Lydd (Borough)	3	...	...	...	...	...	...	3	...	...	...	...	...	...	2	...	1	...	3	1	9	...	...	...	...	...
Maidstone (Borough)...	2	...	7	...	7	1	29	5	5	39	1	2	59	23	26	9	2	4	3	...	13	...	5	31	7	4	111	2	...	...	...	...
Margate (Borough)...	3	...	2	2	1	1	26	2	5	39	3	4	43	11	12	6	6	1	...	...	4	1	...	14	4	1	105	1	...	...	...	...
Milton Regis	1	1	1	1	5	...	...	18	...	...	6	5	5	2	1	...	...	...	...	...	...	2	3	...	24	...	...	...	...	...
New Romney (Borough)...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	1	1	1	...	4	...	...	...	...	...
Northfleet	1	...	1	12	4	...	15	2	2	27	1	2	27	15	31	1	2	2	...	...	9	1	1	11	5	2	38	...	...	...	...	...
Penge	1	...	2	5	3	...	28	2	6	44	...	2	38	25	20	6	5	...	2	...	13	1	3	18	3	5	120	...	...	...	...	...
Queenborough (Borough)...	2	1	1	...	4	3	...	1	4	2	1	...	2	2	1	3	1	4
Ramsgate (Borough)...	4	...	10	2	1	...	27	3	6	40	2	3	45	26	17	2	6	1	1	...	15	1	2	21	10	6	146	2	1	...	...	...
Rochester (City)	4	...	1	6	8	1	22	3	5	35	3	2	38	32	35	2	5	3	1	...	10	1	2	18	12	5	127	...	...	...	...	...
Sandgate	1	...	1	...	1	...	1	3	...	...	2	1	...	...	...	...	1	...	...	...	1	...	...	...	9	1	...	...	...	...
Sandwich (Borough)...	2	...	1	...	3	...	...	5	...	...	6	3	1	...	...	...	1	...	...	1	...	...	3	4	...	10	...	...	...	...
Sevenoaks	2	2	...	...	5	...	1	12	...	...	19	2	7	3	...	...	...	...	2	...	...	...	4	3	...	43	...	...	...	...
Sheerness ...	1	...	3	...	1	...	...	...	12	1	5	11	...	3	12	14	13	2	3	4	1	...	5	...	3	9	3	3	58	2	...	...	...	...
Sittingbourne	1	1	5	...	5	1	2	13	2	1	15	4	4	1	2	...	1	...	1	9	4	1	34	2
Southborough	2	...	...	5	1	...	14	...	...	13	9	3	1	1	2	...	...	...	...	...	...	1	...	...	16	...	...	...	...
Tenterden (Borough)...	1	3	...	3	5	...	2	1
Tonbridge	1	...	...	2	1	1	17	3	3	21	...	1	24	10	11	1	2	...	...	...	2	...	1	9	5	2	54	3	...	...	...	...
Tunbridge Wells (Borough)...	1	2	1	2	19	1	23	2	10	67	3	...	72	19	25	8	2	1	2	1	19	...	2	23	8	5	132	...	...	...	...	...
Walmer	2	...	2	...	1	4	...	1	7	1	2	...	1	...	1	2	1	...	21	1
Whitstable	1	1	...	11	15	1	...	11	2	4	3	1	2	3	1	31	1
Wrotham	1	7	...	1	7	6	6	3	1	...	2	1	1	...	21	1
Total Urban ...	3	...	71	9	71	129	133	12	615	69	122	929	35	46	925	545	506	103	96	55	43	6	223	27	51	467	201	78	2569	42	6	2	3

* Figures have reference to last three months of 1920 only.

ADOPTIVE ACTS AND BYE-LAWS.

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TABLE 35.—SHOWING CAUSES OF DEATH IN THE **RURAL DISTRICTS** OF THE COUNTY OF KENT
DURING THE YEAR 1920 (EXCLUDING NAVAL AND MILITARY DEATHS).

104f

District.	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria and Croup	Influenza	Erysipelas	Pulmonary Tuberculosis	Tuberculosis Meningitis	Other Tuberculous Diseases	Cancer, Malignant Disease	Rheumatic Fever	Meningitis	Organic Heart Disease	Bronchitis	Pneumonia (all forms)	Other Respiratory Diseases	Diarrhoea, &c. (Under 2 years)	Appendicitis and Typhlitis	Cirrhosis of Liver.	Alcoholism	Nephritis and Bright's Disease	Puerperal Fever	Parturition, apart from Puerperal Fever	Congenital Debility, &c.	Violence, apart from Suicide.	Suicide	Other defined Diseases	Causes ill-defined or unknown	Special Causes (included above).				
																															Cerebro-Spinal Fever.	Polomyelitis.	Plague.	Encephalitis Letargica.	
Ashford, East	3	1	...	1	1	...	13	2	1	23	2	2	11	4	12	2	...	2	...	...	4	1	2	10	2	3	66	...	...	1	...	...
Ashford, West...	1	...	...	...	...	1	5	...	2	21	...	1	9	4	9	3	2	...	...	...	1	...	...	5	2	1	32	...	...	...	...	...
Blean	3	...	2	...	5	...	1	10	...	...	9	3	5	...	...	2	...	...	2	...	...	2	3	2	40	...	...	...	...	...
Bridge	1	2	3	...	4	...	1	12	...	1	11	6	1	...	2	...	1	...	1	2	1	8	1	3	46	2	...	...	...	...
Bromley	1	...	...	1	...	...	25	3	1	31	1	3	32	27	14	2	1	3	3	...	6	1	2	16	7	1	87	1	...	...	...	...
Cranbrook	3	1	3	...	5	...	5	1	2	21	1	1	26	11	8	3	1	...	1	...	...	...	1	6	3	6	53	...	...	...	...	...
Dartford	1	...	2	2	3	13	6	4	27	4	2	45	1	...	47	21	25	8	6	4	...	...	17	...	2	27	18	2	95	...	...	...	...
Dover	1	2	...	...	4	1	1	14	...	...	9	5	2	1	1	1	1	...	...	...	1	7	5	...	34	...	...	...	...
Eastry	3	...	1	...	...	...	12	...	...	19	1	...	18	6	10	...	2	1	...	...	...	2	2	...	2	1	2	50	2	...	...	...
Elham	3	1	1	...	7	...	1	8	...	1	11	4	5	1	...	...	...	...	2	1	...	18	3	2	44	2	...	...	...	...
Faversham	1	...	...	10	1	1	16	...	1	12	5	11	4	1	...	...	...	3	1	1	18	1	...	50	...	...	...	...	...
Hollingbourn	1	2	2	7	...	3	19	1	...	20	14	6	...	1	...	1	1	7	...	1	7	1	...	17	1	...	...	...	...
Hoo	1	3	...	...	5	1	...	...	1	...	...	...	...	...	1	2	1	1	17	1	...	...	...	...
Maidstone	3	...	2	...	9	2	4	25	1	1	34	14	10	7	2	4	1	...	3	...	1	9	5	1	59	...	...	...	...	...
Malling...	3	...	1	3	1	1	19	...	4	27	30	19	21	3	...	4	5	...	9	1	...	23	8	3	74	2
Milton	1	3	...	15	1	...	18	...	...	21	6	5	...	2	2	...	...	...	1	...	4	...	...	8	...	...	...	...	...
Romney Marsh	2	...	1	4	...	...	2	2	1	...	...	...	...	...	...	1	...	1	4	...	...	...	...	...	...	...
Sevenoaks	1	...	3	...	5	...	12	...	4	30	1	1	28	9	8	5	1	...	1	2	2	1	...	18
Sheppey	1	3	...	2	2	1	10	3	1	59	2	2	...
Strood	1	1	1	...	1	2	5	15	4	4	21	2	...	12	12	20	...	2	...	...	...	5	...	...	6	1	...	25	...	...	...	...	...
Tenterden	1	1	4	...	1	4	11	3	1	2	1	...	1	6	2	2	35	1
Thanet	1	2	...	2	...	11	2	...	16	12	3	4	1	...	1	4	...	1	6	2	...	61	1
Tonbridge	1	...	2	1	1	3	...	9	1	2	30	...	...	39	12	6	4	2	2	1	...	3	...	...	12	8	...	...	...	...	...	...	...
Total in Rural Districts	3	1	24	5	26	30	41	8	221	22	37	420	11	14	411	192	184	46	27	26	15	1	99	9	21	213	96	38	1139	18	1	1	2	...
Total in Urban Districts	3	...	71	9	71	129	133	12	615	69	122	929	35	46	925	545	506	103	96	55	43	6	223	27	51	467	201	78	2569	42	6	2	...	3
Total for County	6	1	95	14	97	159	174	20	836	91	159	1349	46	60	1336	737	690	149	123	81	58	7	322	36	72	680	297	116	3708	60	7	3	2	3

ADOPTIVE ACTS AND BYE-LAWS.

A summary showing the bye-laws and adoptive Acts in force in the various districts in Kent was contained on pages 108h and 108i of my last Annual Report.

During 1920 new bye-laws as to New Streets and Buildings (P.H. Act, 1875, s. 157, and P.H.A.A. Act, 1890, s. 23) were adopted in *Whitstable*; as to offensive trades (P.H. Act, 1875, s. 113) in *Dartford*; as to houses let in lodgings (P.H. Act, 1875, s. 90) in *Margate*; and as to slaughter-houses (P.H. Act, 1875, s. 169) in *Thanet Rural*.

Bye-laws respecting tents, vans, and sheds (H.W.C. Act, 1885, s. 9 (2)) are needed in *Bexley*.

Bye-laws as to offensive trades (fried fish shops) are required in *Broadstairs*.

Bye-laws as to houses let in lodgings (P.H. Act, 1875, s. 90) are needed in *Dover*, *Folkestone*, *Herne Bay* and *Sheerness*.

In *Folkestone* the bye-laws as to slaughter-houses (P.H. Act, 1875, s. 169) are said to require amending and amplifying. New bye-laws under this section are in course of preparation in *Rochester*, and are said to be required in *Elham Rural*.

Bye-laws requiring the provision of sanitary dustbins are needed in *Walmer*.

The question of the adoption of the Ministry of Health's Model Regulations as to dairies, cowsheds and milkshops is under consideration by the *Blean R.D.C.*

Bye-laws as to the paving of yards are required in *Granbrook Rural*.

In the *Faversham Rural* district the medical officer of health suggests the adoption of a bye-law to allow soakaway cesspools in certain areas.

In *Hollingbourn Rural* the building bye-laws are only in force in the parishes of Boxley, Harrietsham, Headcorn, Hollingbourn, Leeds, Lenham and Sutton Valence. The medical officer of health considers that they are urgently needed in the rest of the rural district.

TABLE 36.—Showing Ages at Death in the **Aggregate Urban** and the **Aggregate Rural Districts** in the County of Kent during the Year 1920 (excluding Naval and Military Deaths).

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Year 1910 (excluding Naval and Military Deaths).																																	
Age.	Sex.	Enteric Fever.	Small Pox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Pulmonary Tuberculosis.	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Diarrhoea, &c.	Appendicitis and Typhilitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Parturition apart from Puerperal Fever.	Congenital Debility, &c.	Violence apart from Suicide.	Suicide.	Other Defined Diseases.	Causes ill-defined or unknown.		
Aggregate Urban Districts.																																	
Under 1 year	M.	..	..	3	1	14	3	2	1	6	7	9	..	..	5	..	53	58	4	56	..	..	..	..	..	..	..	277	13	..	119	1
1 year and under 2 years	F.	..	..	6	..	17	3	..	1	2	6	2	..	..	4	1	41	45	3	33	..	..	..	..	..	..	183	7	..	88	1	
2 years and under 5 years	M.	..	..	9	..	7	3	2	..	1	8	3	..	..	6	..	4	28	2	3	..	..	..	..	..	..	..	..	..	10	2	
5 years and under 15 years	F.	..	..	14	1	8	2	1	..	..	6	4	..	..	2	..	4	19	2	4	..	..	..	..	..	..	..	..	..	14	1	
15 years and under 25 years	M.	..	..	16	1	6	19	1	..	1	6	8	1	1	5	2	5	27	2	3	1	..	..	..	..	..	..	..	..	7	..	
25 years and under 45 years	F.	..	..	8	2	15	15	2	..	4	4	3	..	1	3	..	3	9	2	2	3	..	..	..	..	..	..	..	..	..	..	..
45 years and under 65 years	M.	..	..	7	1	2	36	7	..	8	9	10	3	5	7	2	2	10	4	3	4	..	..	..	..	..	..	..	..	..	..	..
65 years and over	F.	..	..	8	1	2	39	1	..	26	15	11	..	7	3	10	3	7	2	2	3	..	..	..	..	..	..	..	..	..	..	..
	M.	3	5	1	55	1	6	5	2	3	7	..	14	4	1	6	3	1	11	..	26	..
	F.	1	..	2	10	2	82	2	9	3	1	1	7	..	7	..	1	6	6	22	2	35
	M.	17	..	145	1	14	28	4	..	36	4	41	5	5	10	3	1	7	1	17	102	3	..
	F.	1	12	1	116	2	12	56	5	3	39	4	34	10	3	7	3	1	7	10	7	101
	M.	1	..	..	..	..	12	1	84	1	13	170	4	2	153	40	63	13	10	6	8	2	40	..	..	..	..	37	17	256	8	..
	F.	2	1	..	1	22	2	55	1	12	215	1	2	107	33	36	11	8	4	12	2	40	10	7	256
	M.	..	..	..	..	..	13	..	21	..	3	205	2	..	240	140	51	19	8	2	10	..	..	..	..	..	..	9	9	252	14	..
	F.	..	..	..	..	..	23	3	9	..	3	243	2	..	321	209	57	20	11	3	7	..	..	53	..	..	..	14	12	658	2	..
All ages—Urban	M.	1	..	35	3	29	64	59	3	321	33	66	412	18	28	440	248	292	53	89	29	21	3	112	..	..	278	141	57	1213	16	..
	F.	2	..	36	6	42	63	74	9	294	36	56	517	17	18	485	297	214	50	61	26	22	3	111	27	51	189	60	21	1302	26	..	
Aggregate Rural Districts.																																	
Under 1 year	M.	..	..	2	..	6	1	1	..	..	2	2	..	..	2	..	11	23	1	12	..	..	..	..	..	..	108	4	..	41	1	..
1 year and under 2 years	F.	..	..	1	..	8	..	..	3	1	..	..	..	..	3	..	11	14	..	12	..	..	..	..	..	..	102	2	..	26	1	..
2 years and under 5 years	M.	..	..	4	..	2	1	..	..	..	2	..	..	..	1	..	3	3	1	2	..	..	..	..	..	..	2	2	..	5	..	..
5 years and under 15 years	F.	..	..	3	1	3	1	..	..	..	2	..	..	..	1	..	1	6	..	1	1	..	..	..	..	..	..	..	..	..	..	..
15 years and under 25 years	M.	..	..	5	1	2	3	1	..	3	4	3	..	..	..	2	8	..	..	1	..	..	..	..	..	..	..	1	2	..	..	..
25 years and under 45 years	F.	..	..	2	2	..	10	1	..	5	3	3	..	1	..	1	..	2	2	1	5	..	..	2	..	..	..	6	1	11	..	..
45 years and under 65 years	M.	..	..	2	1	..	8	1	1	9	6	1	1	3	..	4	..	5	..	..	1	..	..	1	..	..	..	3	..	11	..	..
65 years and over	F.	..	..	..	..	..	3	2	..	29	1	1	1	..	..	4	..	5	..	..	1	..	..	1	..	..	..	..	..	..	..	..
	M.	1	..	..	..	..	3	1	..	24	..	2	..	3	2	2	..	8	1	..	..	..	..	1	..	..	..	..	..	..	..	..
	F.	..	..	..	..	..	3	1	..	55	..	7	16	1	1	15	2	14	2	1	5	..	1	6	..	..	..	..	1	..	..	..
	M.	..	1	1	..	..	1	6	..	42	1	6	21	3	..	14	..	5	..	1	8	1	..	5	8	16	..	..	..	..	..	..
	F.	..	..	..	..	..	1	1	2	..	42	1	6	21	3	..	14	..	5	..	1	8	1	..	5	8	16	..	..	..	..	..
	M.	2	..	..	..	..	6	..	..	26	..	6	74	..	3	40	13	19	9	..	2	6	..	13	..	..	..	9	11	94	1	..
	F.	..	..	..	..	..	5	..	19	..	2	105	..	..	..	47	11	12	5	1	1	4	..	12	..	..	..	6	5	102	5	..
	M.	..	..	..	..	..	6	2	3	..	..	101	..	..	..	139	70	22	15	3	..	1	..	28	..	..	..	14	8	375	3	..
	F.	..	..	..	..	..	6	1	1	..	3	101	..	1	144	67	34	9	5	..	3	..	28	..	..	..	..	13	1	356	2	..
All ages—Rural																																	
	M.	3	1	12	2	10	17	23	2	119	9	20	192	2	7	200	100	95	31	19	14	7	1	50	..	..	110	66	32	570	8	..
	F.	..	..	12	3	16	13	18	6	102	13	17	228	9	7	211	92	89	15	20	12	8	..	49	9	21	103	30	6	557	10	..

